

ZDF2、ZDF3
HYPOID GEAR MOTOR

ZDF2、ZDF3准双曲面齿轮减速电机

中大力德

采用了偏轴伞齿轮的高强度、高转矩电动机 High strength and high torque motor with eccentric shaft bevel gear

※偏轴伞齿轮仅限于直交轴减速电动机 The eccentric shaft bevel gear is limited to right-angle gear motor

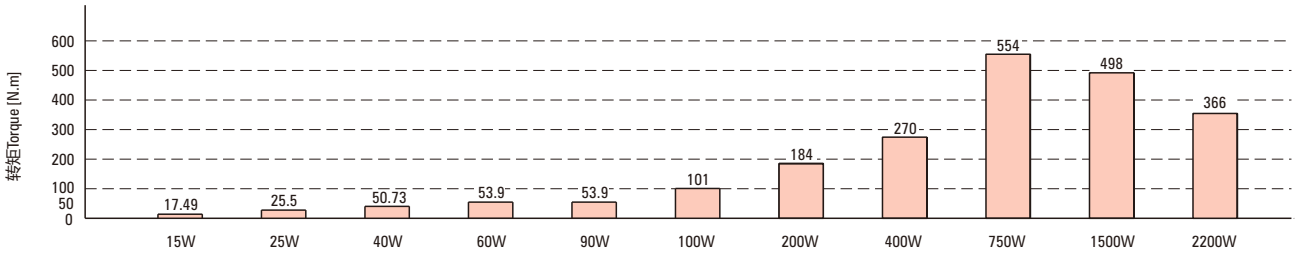
高功率电动机结合高强度偏轴伞齿轮减速机的产品。高转矩的减速电动机可以满足顾客所需的广泛用途。

High power motor combined with high strength eccentric shaft bevel gear reducer product. High torque reduction motor can meet the needs of customers for a wide range of purposes.

容许转矩 Allowable Torque

以下图表为各功率的减速机电动机所能发挥的最大容许转矩。 The following chart shows the maximum allowable torque the gear motor can output.

● **直交轴** Right-angle shaft

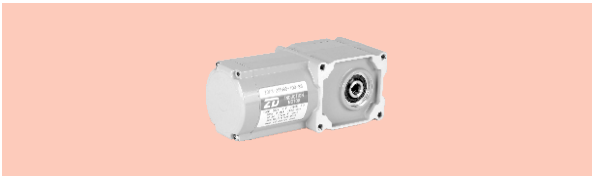


丰富的减速比产品阵容 Rich range of gearmotors and ratios

减速比从5～240，共备有17种种类丰富且划分精细的机型。可根据用途，从直交轴（中空轴、中实轴）的各输出轴中选择最适合的产品。

Reduction ratio from 5～240, a total of 17 types of rich and finely divided models. According to the utility, the most suitable product is selected from each output shaft of the parallel axis, the direct cross shaft (the hollow shaft) and the middle solid shaft).

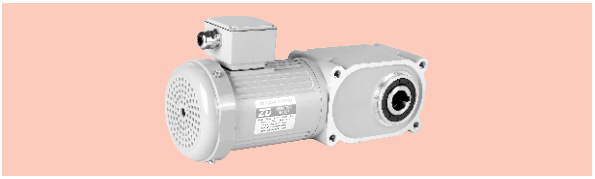
● **直交轴（中空轴）** Right-angle shaft(hollow shaft)



F2减速比共有14种类

There are 14 types of reduction ratio

10、15、20、25、30、40、50、60、80、100、120、160、200、240

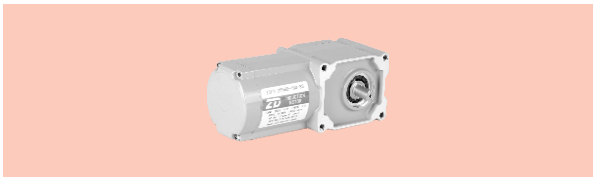


F3减速比共有17种类

There are 17 types of reduction ratio

5、7.5、10、12、15、20、25、30、40、50、60、80、100、120、160、200、240

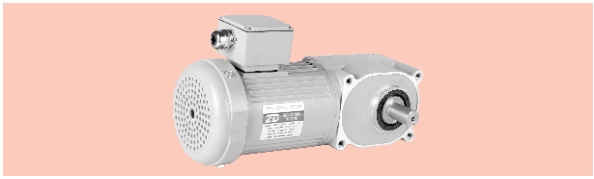
● **直交轴（中实轴）** Right-angle shaft(solid shaft)



F2减速比共有14种类

There are 14 types of reduction ratio

10、15、20、25、30、40、50、60、80、100、120、160、200、240



F3减速比共有17种类

There are 17 types of reduction ratio

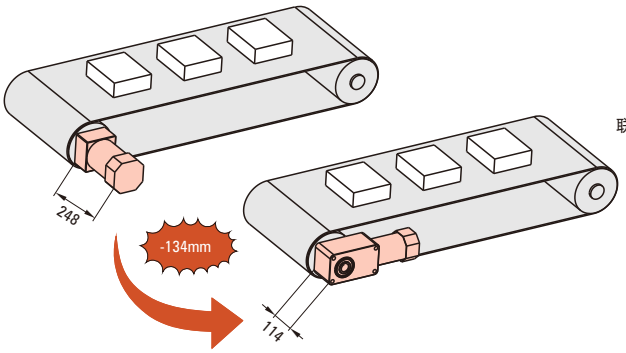
5、7.5、10、12、15、20、25、30、40、50、60、80、100、120、160、200、240

实现装置小型化，节约开发成本 To achieve miniaturization, saving development costs

（直交轴减速电动机）(Right angle speed reducer motor)

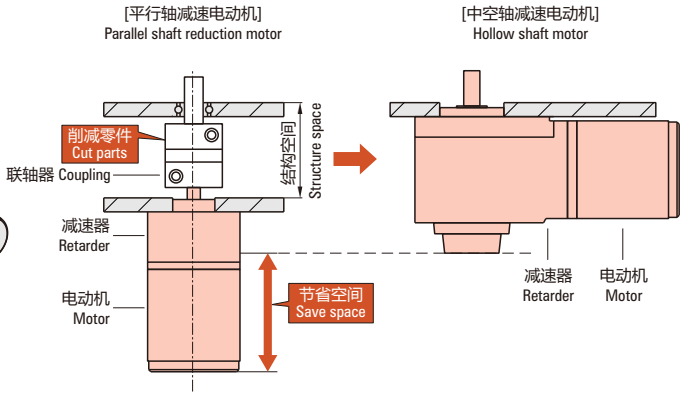
最适于节省空间 The Most Suitable To Save Space

负载轴与电动机部分成直角，故可节省作业空间。
The load shaft and the electric motor are at right angles, so the working space can be saved.



节约成本 Cost Savings

中空轴减速电动机还简化了连结零件，从而可减少零件成本和组装工时。
The hollow shaft reduction motor also simplifies the connecting parts, thereby reducing the cost of parts and assembling working hours.



图为输出功率200W，减速比5的平行轴减速电动机与直交轴减速电动机的比较。
The figure is the comparison of the output power 200W, the reduction ratio of 5 parallel shaft motor and the speed reduction motor.

适合用于与变频器组合使用

Suitable for use in combination with frequency converter

可实现低速至高速的广泛速度控制。而且速度受负载影响较小，速度控制更加稳定。
Can achieve low speed to high speed of the extensive speed control. And the speed is less affected by the load, the speed control is more stable.

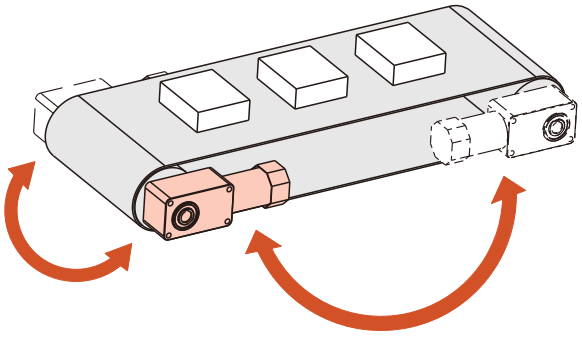
安装自由度高的设计 High degree of freedom of the design

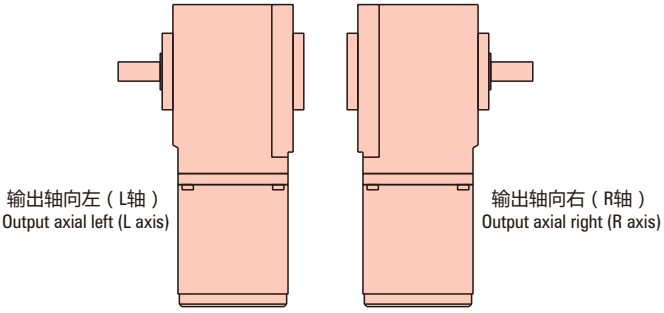
（直交轴减速电动机）(Direct axis speed reducer motor)

左右同心轴构造 Left And Right Concentric Axis Structure

减速机的输出轴位于安装面上下方向的中心处的构造。
安装在输送机等装置的时候，不管安装方向是向左还是向右，都不需要改变安装孔的位置。
The output shaft of the speed reducer is arranged at the center of the upper and the lower direction of the mounting surface.
When installed in the conveyor and other devices, whether the installation direction is to the left or right, do not need to change the location of the installation hole.

中空轴减速电动机还简化了连结零件，从而可减少零件成本和组装工时。
The hollow shaft reduction motor also simplifies the connecting parts, thereby reducing the cost of parts and assembling working hours.





一般规格 General Specification

项目 Project		规格 Specifications	
电动机部分 Motor part		ZDF2 系列 Series	ZDF3 系列 Series
	相数 Phase number	单相、三相 Single-phase、Three-phase	三相 Three-phase
	功率 Power	15W、25W、40W、60W、90W	100W、200W、400W、750W、1500W
	电源电压 Supply Voltage	单相110V/50/60Hz、单相220V/50/60Hz 三相220V/50/60Hz、三相380V/50/60Hz	三相220V/50/60Hz、三相380V/50/60Hz
	绝缘等级 Insulation grade	F级 Stage	F级 Stage
	启动方式 Startup mode	单相电容启动，三相直接启动 Single phase capacitor start	直接启动 Direct start
	保护冷却方式 Protection cooling mode	15W~90W不带制动器带接线盒为全封闭型。 15W~90W without brake with junction box is fully enclosed.	外扇全封闭（100W的不带制动器为全封闭型）。 Outer fan full closed (100W without brake for fully enclosed type).
	极数 The number of poles	4	4
	额定 Rated	持续 Continued （除带刹车外）(Except with brake)	持续 Continued
减速机部分 Reducer part	减速方式 Deceleration mode	直交轴：双曲面齿轮、螺旋齿轮 Straight shaft: hyperbolic gear, helical gear	
	润滑方式 Lubrication mode	润滑脂润滑（免维护） Lubricating grease lubrication (Maintenance free)	
	输出轴 Output shaft	普通平健型（GB / T 1096-1979） General health (GB / T 1096-1979)	
	输出轴材料 Output shaft material	40Cr	
	外壳材料 Shell material	铝（压铸） Al (Die-casting)　　注：1500W、2200W 铝合金（拉伸） Note: 1500W、2200W aluminum alloy (Tensile)	
周围条件 Ambient conditions	耐受温度 Tolerance temperature	-10℃~40℃	
	耐受湿度 Tolerance humidity	80%以下（不结露） The following 80% (No dew)	
	高度 Height	1000m以下 Below 1000m	
	环境 Environmental science	无腐蚀性气体、易爆性气体及蒸汽等。无灰尘、通风良好的场所。 Non corrosive gas, explosive gas, steam, etc.. No dust, well ventilated place.	
	安装场所 Installation place	室内 Indoor	
安装方向 Installation direction		水平、垂直、倾斜等，对安装角度无任何限制。 Horizontal, vertical, inclined and so on, no restrictions on the installation angle.	

一般规格 General Specification

			输出功率 Output Power	轴径 Shaft Diameter / 减速比 Reduction Ratio	5	7.5	10	12	15	20	25	30	40	50	60	80	100	120	160	200	240
ZDF2	直交 中空轴 Direct hollow shaft	标准型、带电磁制动性 Standard type, With electromagnetic brake	15W	12mm			●		●	●	●	●	●	●	●	●	●	●	●	●	●
			25W	12mm			●		●	●	●	●	●	●	●	●	●	●	●	●	●
			40W	15mm			●		●	●	●	●	●	●	●	●	●	●	●	●	●
			60W	15mm			●		●	●	●	●	●	●	●	●	●	●	●	●	●
			90W	15mm			●		●	●	●	●	●	●	●	●	●	●	●	●	●
	直交 中实轴 Direct medium real axis	标准型、带电磁制动性 Standard type, With electromagnetic brake	15W	15mm			●		●	●	●	●	●	●	●	●	●	●	●	●	●
			25W	15mm			●		●	●	●	●	●	●	●	●	●	●	●	●	●
			40W	18mm			●		●	●	●	●	●	●	●	●	●	●	●	●	●
			60W	18mm			●		●	●	●	●	●	●	●	●	●	●	●	●	●
			90W	18mm			●		●	●	●	●	●	●	●	●	●	●	●	●	●
ZDF3	直交 中空轴 Direct hollow shaft	标准型、带电磁制动性 Standard type, With electromagnetic brake	100W	20mm	●	●	●	●	●	●	●	●	●	●	●						
				25mm												●	●	●	●	●	●
			200W	25mm	●	●	●	●	●	●	●	●	●	●	●						
				30mm												●	●	●	●	●	●
			400W	30mm	●	●	●	●	●	●	●	●	●	●	●						
				35mm												●	●	●	●	●	●
			750W	35mm	●	●	●	●	●	●	●	●	●	●	●						
				45mm												●	●	●	●	●	●
			1500W	45mm	●	●	●	●	●	●	●	●	●	●	●						
			2200W	45mm	●	●	●	●	●	●	●	●									
	直交 中实轴 Direct medium real axis	标准型、带电磁制动性 Standard type, With electromagnetic brake	100W	18mm	●	●	●	●	●	●	●	●	●	●	●						
				22mm												●	●	●	●	●	●
			200W	22mm	●	●	●	●	●	●	●	●	●	●	●						
				28mm												●	●	●	●	●	●
			400W	28mm	●	●	●	●	●	●	●	●	●	●	●						
				32mm												●	●	●	●	●	●
			750W	32mm	●	●	●	●	●	●	●	●	●	●	●						
				40mm												●	●	●	●	●	●
			1500W	40mm	●	●	●	●	●	●	●	●	●	●	●						
			2200W	40mm	●	●	●	●	●	●	●	●									

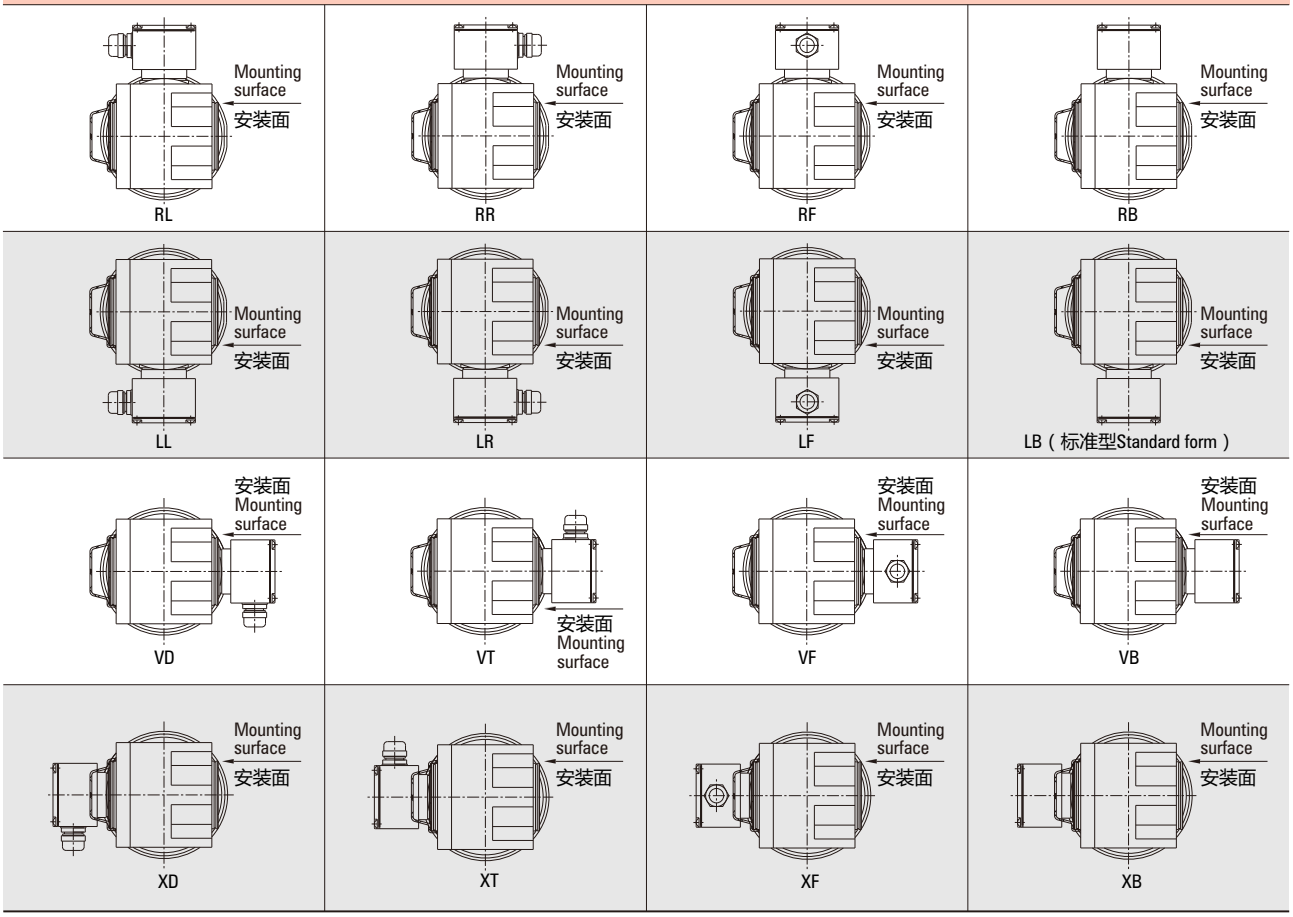
品名的阅读方法
MODEL NO. CODING

电动机 Motor

ZDF3 - 25 H 30 LB - 100 - S B
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

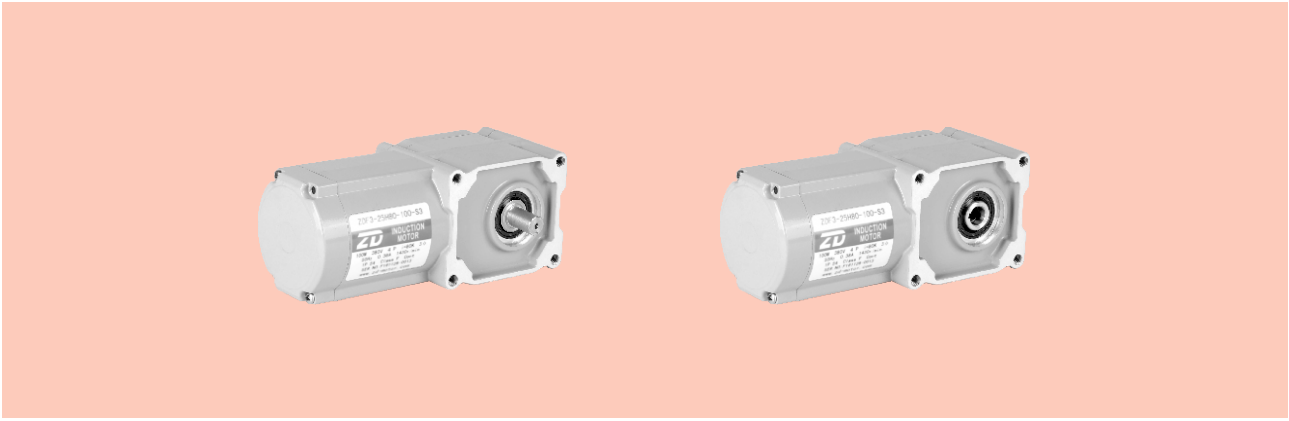
①	系列 Series	ZDF2: F2系列 ZDF3: F3系列 ZDF2: F2 Series ZDF3: F3 Series
②	出轴直径或孔径	Shaft diameter or bore diameter
③	出轴类型（实心轴见附图）	The shaft type (Solid shaft attached)
	H: 空心轴 A: 实心轴	H: Hollow shaft A: Solid shaft
④	减速比 Reduction ratio	30:1
⑤	表示接线盒方向（标准型省略）	Indicates the direction of the junction box (standard type omitted)
⑥	额定输出功率 Rated output power	100:100W
⑦	F2电源 Power supply	C (单相 Single-phase 220V50/60Hz)
		H (单相 Single-phase 220V/60Hz)
		A (单相 Single-phase 110V50/60Hz)
		E (单相 Single-phase 110V/60Hz)
		S (3PH-220V50/60Hz)
		S3 (3PH-380V50/60Hz)
		U (3PH-220/380V50/60Hz)
	F3电源 Power supply	S (3PH-220V50/60Hz)
		S3 (3PH-380V50/60Hz)
⑧	附加装置 Attachment unit	B: 刹车 FF: 强制风扇 F: 风扇 T: 接线盒 P: 热保护器 B: Brake FF: Axial flow fan F: Fan T: Connection box P: Thermal protector

接线盒方向（详见下表）Direction of junction box (See table below for details)



⑧中F、T只针对ZDF2产品，ZDF3默认自带风扇，接线盒。
Note: Line ⑧ is only refer to ZDF2 series, ZDF3 is pre installed with fan and terminal box.

ZDF2尺寸图
ZDF2 SIZE CHART



规格・连续额定 Specification And Continuous Rating

型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	
ZDF2-12H□-15-S(TB)	15	200	60	0.12	0.09	1550	0.16	0.30	F
		220	50	0.13	0.11	1350	0.26	0.35	
ZDF2-12H□-15-S3(TB)		380	50	0.08	0.11	1350	0.26	0.20	
		460	60	0.08	0.09	1680	0.30	0.22	

型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	电容器 Capacitor	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	UF	
ZDF2-15A□-15-C(TB)	15	220	60	0.15	0.09	1680	0.08	0.33	1.20	F
		220	50	0.15	0.10	1380	0.08	0.35		
ZDF2-15A□-15-A(TB)		110	50	0.30	0.10	1380	0.08	0.68	5.00	
		110	60	0.34	0.09	1680	0.08	0.65		

功率 Power	孔径/轴径 Aperture/Axis Diameter	减速比 ReductionRatio	输出轴转速 Output Shaft Speed	输出轴容许转矩 Output Shaft Torque		输出轴容许 Output Shaft Tolerance		输出轴容许 Output Shaft Tolerance	
			r/min	N.m	kgf.m			轴向力负载 Axial Force Load	
W	mm	i	50Hz	50Hz	50Hz	N	kgf	N	kgf
15	12/15	10	150	0.810	0.08	343	35	88	9
		15	100	1.210	0.12	441	45	108	11
		20	75.0	1.620	0.16	539	55	137	14
		25	60.0	2.020	0.20	588	60	147	15
		30	50.0	2.430	0.24	686	70	177	18
		40	37.5	3.240	0.33	784	80	196	20
		50	30.0	4.050	0.41	882	90	226	23
		60	25.0	4.860	0.49	882	90	226	23
		80	18.8	5.830	0.59	980	100	245	25
		100	15.0	7.290	0.74	980	100	245	25
		120	12.5	8.740	0.89	1080	110	275	28
		160	9.40	11.66	1.18	1080	110	275	28
		200	7.50	14.58	1.48	1080	110	275	28
		240	6.30	17.49	1.78	1080	110	275	28

ZDF2尺寸图
ZDF2 SIZE CHART

规格・连续额定 Specification And Continuous Rating

型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	
ZDF2-12H□-25-S(TB)	25	200	60	0.17	0.16	1450	0.22	0.36	F
		220	50	0.18	0.18	1300	0.34	0.43	
ZDF2-12H□-25-S3(TB)		380	50	0.11	0.18	1300	0.34	0.24	
		460	60	0.10	0.15	1650	0.36	0.27	

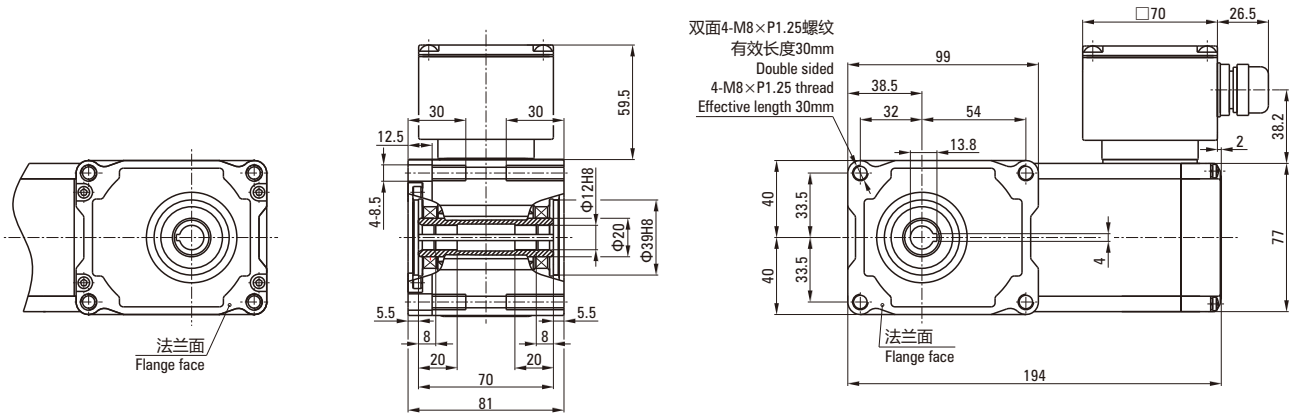
型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	电容器 Capacitor	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	UF	
ZDF2-15A□-25-C(TB)	25	220	60	0.21	0.15	1620	0.09	0.46	1.50	F
		220	50	0.26	0.18	1320	0.09	0.52		
ZDF2-15A□-25-A(TB)		110	50	0.48	0.18	1320	0.09	0.93	6.00	
		110	60	0.43	0.15	1620	0.09	0.83		

功率 Power	孔径/轴径 Aperture/Axis Diameter	减速比 ReductionRatio	输出轴转速 Output Shaft Speed	输出轴容许转矩 Output Shaft Torque		输出轴容许 Output Shaft Tolerance		输出轴容许 Output Shaft Tolerance	
			r/min	N.m	kgf.m			轴向力负载 Axial Force Load	
W	mm	i	50Hz	50Hz	50Hz	N	kgf	N	kgf
25	12/15	10	150	1.450	0.14	343	35	88	9
		15	100	2.180	0.22	441	45	108	11
		20	75.0	2.910	0.29	539	55	137	14
		25	60.0	3.640	0.37	588	60	147	15
		30	50.0	4.370	0.44	686	70	177	18
		40	37.5	5.830	0.59	784	80	196	20
		50	30.0	7.290	0.74	882	90	226	23
		60	25.0	8.740	0.89	882	90	226	23
		80	18.8	10.49	1.07	980	100	245	25
		100	15.0	13.12	1.33	980	100	245	25
		120	12.5	15.74	1.60	1080	110	275	28
		160	9.40	20.99	2.14	1080	110	275	28
		※200	7.50	25.50	2.60	1080	110	275	28
		※240	6.30	25.50	2.60	1080	110	275	28

注：带※号的为转矩力限制机种，使用时请阅读本表。Note: The number for the torque limit model, please read this table.

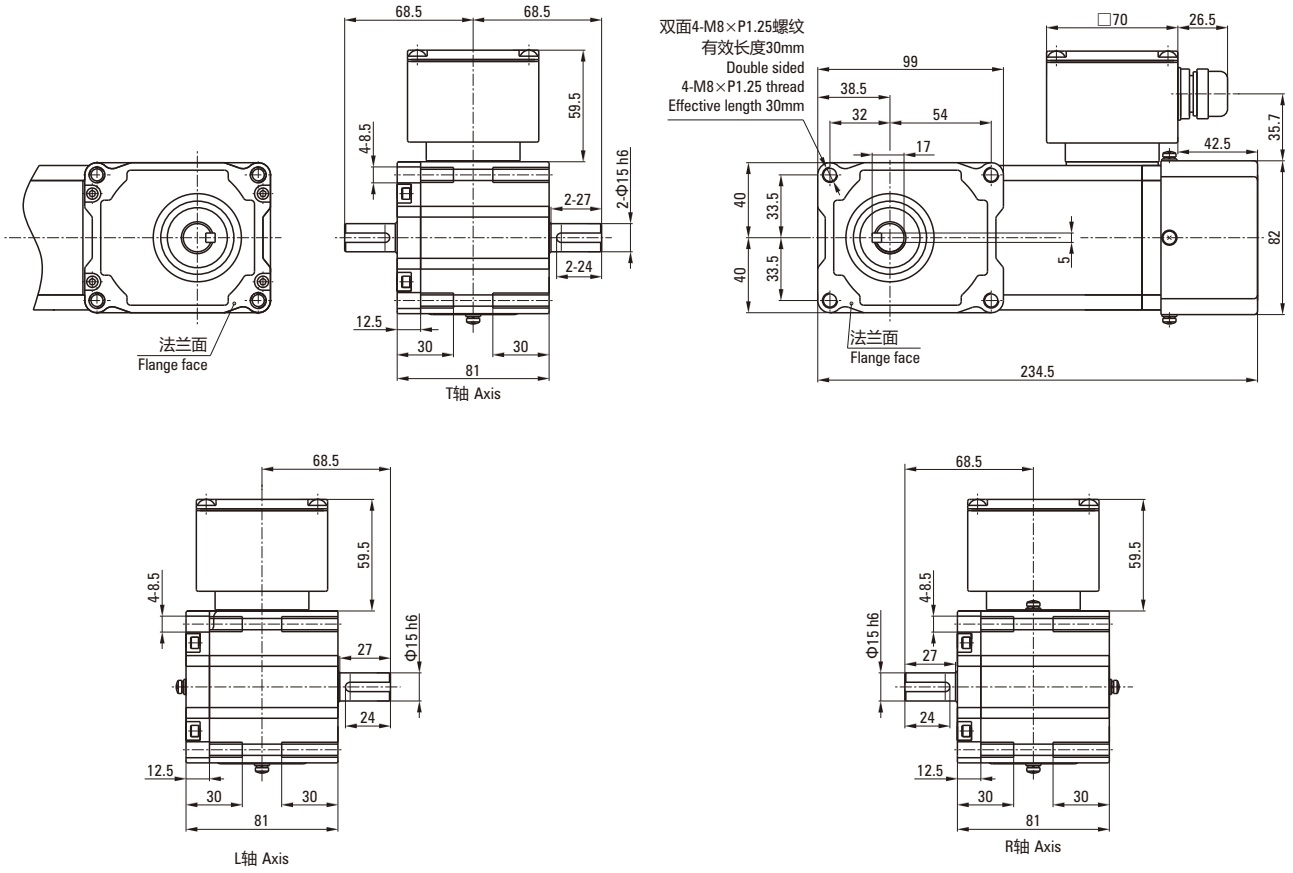
外形图
OUTLINE DRAWING

■ZDF2-12H10～240-15～25-C(T)　　ZDF2-12H10～240-15～25-A(T)
ZDF2-12H10～240-15～25-S(T)　　ZDF2-12H10～240-15～25-S3(T)



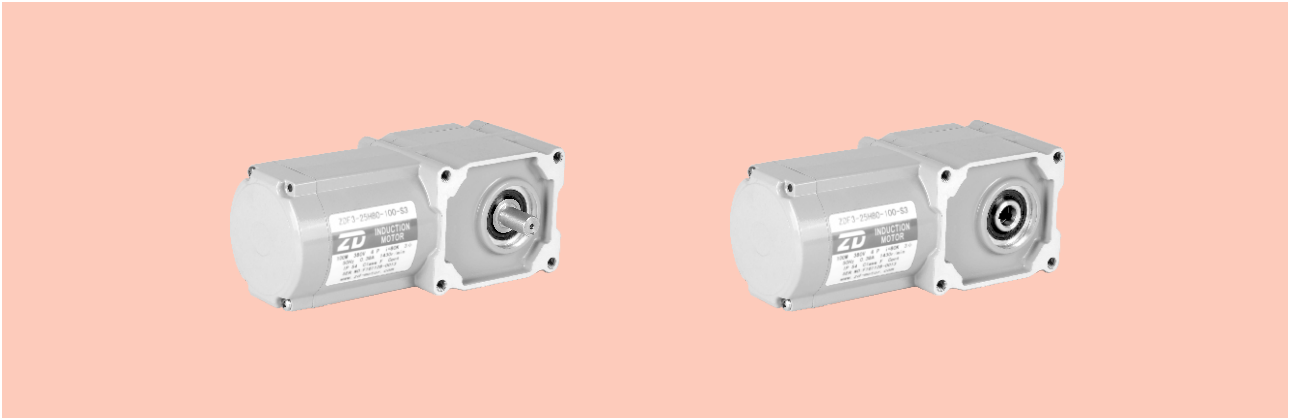
注：常规产品不带接线盒 Note: Conventional products without wiring box

■ZDF2-15A10$^{L}_{T}$～240$^{L}_{T}$-15～25-C(TB)　　ZDF2-15A10$^{L}_{T}$～240$^{L}_{T}$-15～25-A(TB)　　ZDF2-15A10$^{L}_{T}$～240$^{L}_{T}$-15～25-S(TB)
ZDF2-15A10$^{L}_{T}$～240$^{L}_{T}$-15～25-S3(TB)



注：常规产品不带接线盒 Note: Conventional products without wiring box

ZDF2尺寸图
ZDF2 SIZE CHART



规格・连续额定 Specification And Continuous Rating

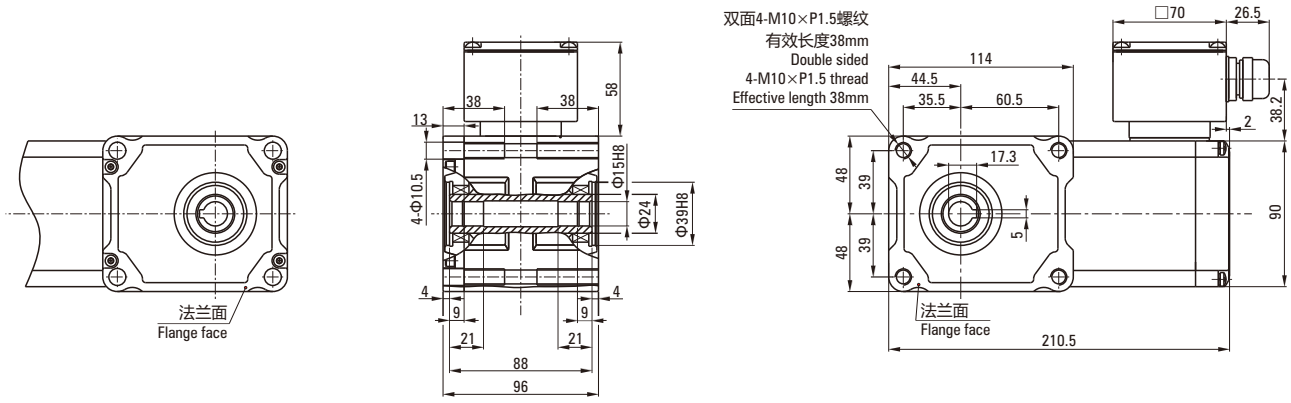
型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	
ZDF2-15H□-40-S(TB)	40	200	60	0.27	0.25	1500	0.62	0.76	F
		220	50	0.29	0.29	1320	0.90	0.90	
ZDF2-15H□-40-S3(TB)		380	50	0.17	0.29	1320	0.90	0.56	
		460	60	0.16	0.23	1650	1.00	0.62	

型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	电容器 Capacitor	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	UF	
ZDF2-18A□-40-C(TB)	40	220	60	0.33	0.23	1650	0.20	0.80	2.50	F
		220	50	0.33	0.29	1350	0.20	0.85		
ZDF2-18A□-40-A(TB)		110	50	0.65	0.29	1350	0.20	1.70	10.0	
		110	60	0.65	0.23	1650	0.20	1.50		

功率 Power	孔径/轴径 Aperture/Axis Diameter	减速比 ReductionRatio	输出轴转速 Output Shaft Speed	输出轴容许转矩 Output Shaft Torque		输出轴容许 Output Shaft Tolerance		输出轴容许 Output Shaft Tolerance	
			r/min	N.m	kgf.m			轴向力负载 Axial Force Load	
W	mm	i	50Hz	50Hz	50Hz	N	kgf	N	kgf
40	15/18	10	150	2.350	0.23	343	35	88	9
		15	100	3.520	0.35	441	45	108	11
		20	75.0	4.690	0.47	539	55	137	14
		25	60.0	5.870	0.59	588	60	147	15
		30	50.0	7.040	0.71	686	70	177	18
		40	37.5	9.390	0.95	784	80	196	20
		50	30.0	11.74	1.19	882	90	226	23
		60	25.0	14.09	1.43	882	90	226	23
		80	18.8	16.91	1.72	980	100	245	25
		100	15.0	21.14	2.15	980	100	245	25
		120	12.5	25.36	2.58	1080	110	275	28
		160	9.40	33.82	3.45	1370	140	343	35
		200	7.50	42.28	4.31	1370	140	343	35
		240	6.30	50.73	5.17	1370	140	343	35

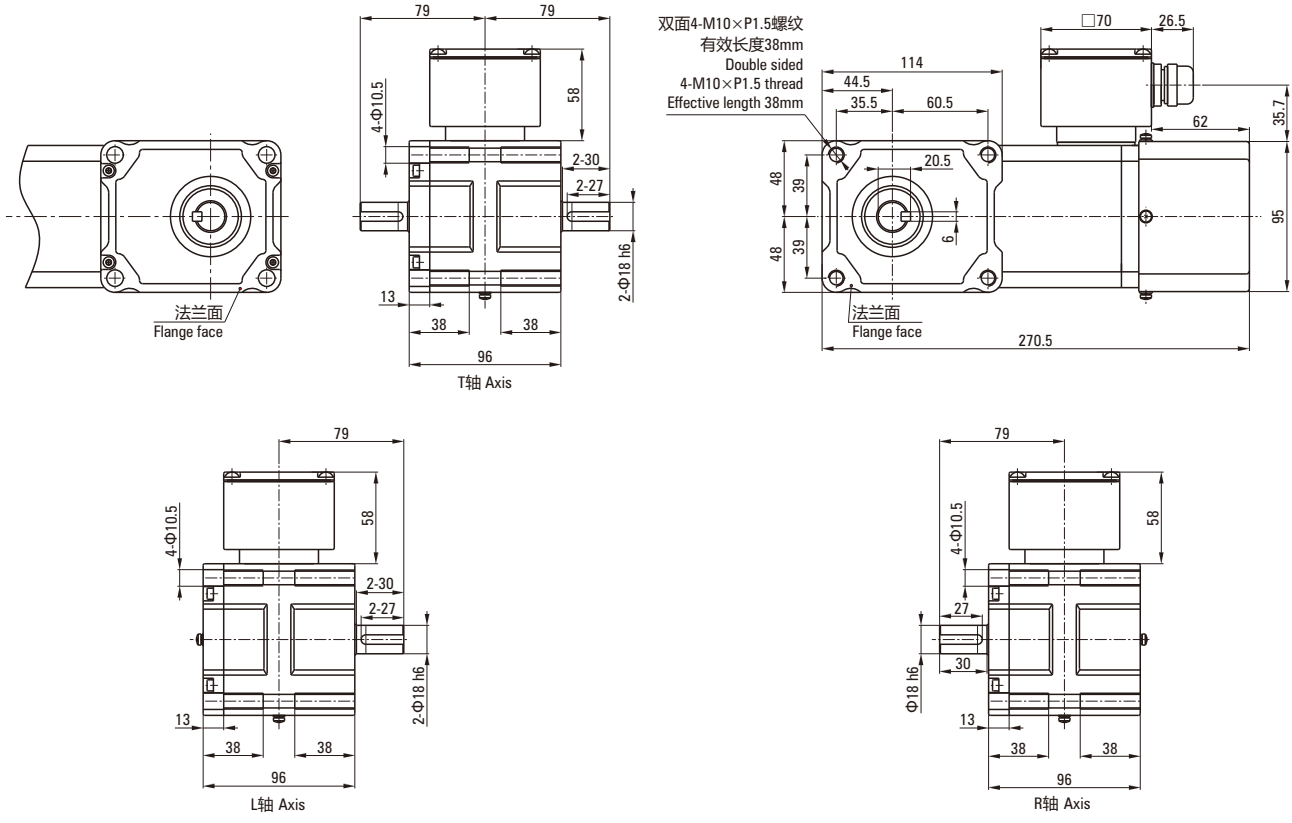
外形图
OUTLINE DRAWING

■ZDF2-15H10～240-40-C(T)　　ZDF2-15H10～240-40-A(T)
ZDF2-15H10～240-40-S(T)　　ZDF2-15H10～240-40-S3(T)



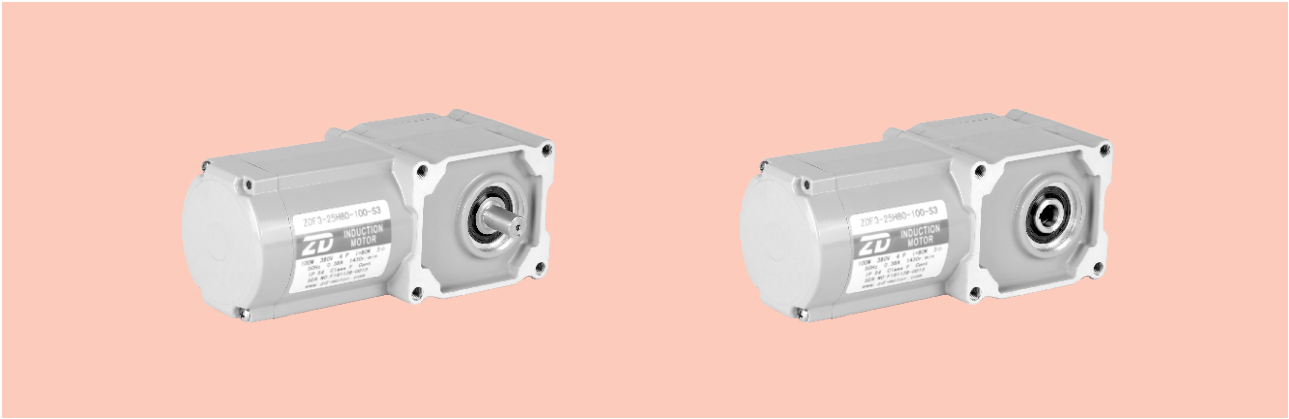
注：常规产品不带接线盒 Note: Conventional products without wiring box

■ZDF2-18A10$^{L}_{R}$～240$^{L}_{R}$-40-C(TB)　　ZDF2-18A10$^{L}_{R}$～240$^{L}_{R}$-40-A(TB)
ZDF2-18A10$^{L}_{R}$～240$^{L}_{R}$-40-S(TB)　　ZDF2-18A10$^{L}_{R}$～240$^{L}_{R}$-40-S3(TB)



注：常规产品不带接线盒 Note: Conventional products without wiring box

ZDF2尺寸图
ZDF2 SIZE CHART



规格・连续额定 Specification And Continuous Rating

型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	
ZDF2-15H□-60-S(FTB)	60	200	60	0.40	0.36	1600	0.90	1.30	F
		220	50	0.50	0.44	1350	1.40	1.40	
ZDF2-15H□-60-S3(FTB)		380	50	0.28	0.44	1350	1.40	0.75	
		460	60	0.28	0.36	1600	1.50	0.85	

型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	电容器 Capacitor	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	UF	
ZDF2-18A□-60-C(FTB)	60	220	60	0.47	0.36	1600	0.23	0.95	3.00	F
		220	50	0.49	0.44	1300	0.23	1.10		
ZDF2-18A□-60-A(FTB)		110	50	1.00	0.44	1300	0.23	2.10	12.0	
		110	60	0.90	0.36	1600	0.23	1.95		

功率 Power	孔径/轴径 Aperture/Axis Diameter	减速比 ReductionRatio	输出轴转速 Output Shaft Speed	输出轴容许转矩 Output Shaft Torque		输出轴容许 Output Shaft Tolerance		输出轴容许 Output Shaft Tolerance	
			r/min	N.m	kgf.m			轴向力负载 Axial Force Load	
W	mm	i	50Hz	50Hz	50Hz	N	kgf	N	kgf
60	15/18	10	150	3.560	0.36	343	35	108	11
		15	100	5.340	0.54	441	45	147	15
		20	75.0	7.120	0.72	539	55	186	19
		25	60.0	8.910	0.90	588	60	226	23
		30	50.0	10.69	1.09	686	70	245	25
		40	37.5	14.25	1.45	784	80	275	28
		50	30.0	17.82	1.81	882	90	294	30
		60	25.0	21.38	2.18	882	90	294	30
		80	18.8	25.66	2.61	1270	130	324	33
		100	15.0	32.07	3.27	1270	130	324	33
		120	12.5	38.49	3.92	1370	140	343	35
		160	9.40	51.32	5.23	1370	140	343	35
		※200	7.50	53.90	5.50	1370	140	343	35
		※240	6.30	53.90	5.50	1370	140	343	35

注：带※号的为转矩力限制机种，使用时请阅读本表。Note: The number for the torque limit model, please read this table.

ZDF2尺寸图
ZDF2 SIZE CHART

规格・连续额定 Specification And Continuous Rating

型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	
ZDF2-15H□-90-S(FTB)	90	200	60	0.55	0.57	1500	1.30	1.55	F
		220	50	0.68	0.66	1300	1.90	1.75	
ZDF2-15H□-90-S3(FTB)		380	50	0.38	0.66	1300	1.90	0.95	
		460	60	0.37	0.54	1600	2.00	1.05	

型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	电容器 Capacitor	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	UF	
ZDF2-18A□-90-C(FTB)	90	220	60	0.68	0.55	1550	0.40	1.30	4.50	F
		220	50	0.75	0.68	1250	0.40	1.40		
ZDF2-18A□-90-A(FTB)		110	50	1.45	0.68	1250	0.40	2.80	20.0	
		110	60	1.45	0.55	1550	0.40	2.60		

功率 Power	孔径/轴径 Aperture/Axis Diameter	减速比 ReductionRatio	输出轴转速 Output Shaft Speed	输出轴容许转矩 Output Shaft Torque		输出轴容许 Output Shaft Tolerance		输出轴容许 Output Shaft Tolerance	
			r/min	N.m	kgf.m			轴向力负载 Axial Force Load	
W	mm	i	50Hz	50Hz	50Hz	N	kgf	N	kgf
90	15/18	10	150	5.340	0.54	441	45	108	11
		15	100	8.010	0.81	588	60	147	15
		20	75.0	10.69	1.09	735	75	186	19
		25	60.0	13.36	1.36	882	90	226	23
		30	50.0	16.03	1.63	980	100	245	25
		40	37.5	21.38	2.18	1080	110	275	28
		50	30.0	26.73	1.70	1180	120	294	30
		60	25.0	32.07	3.27	1180	120	294	30
		80	18.8	38.49	3.92	1270	130	324	33
		100	15.0	48.11	4.90	1270	130	324	33
		※120	12.5	53.90	5.50	1370	140	343	35
		※160	9.40	53.90	5.50	1370	140	343	35
		※200	7.50	53.90	5.50	1370	140	343	35
		※240	6.30	53.90	5.50	1370	140	343	35

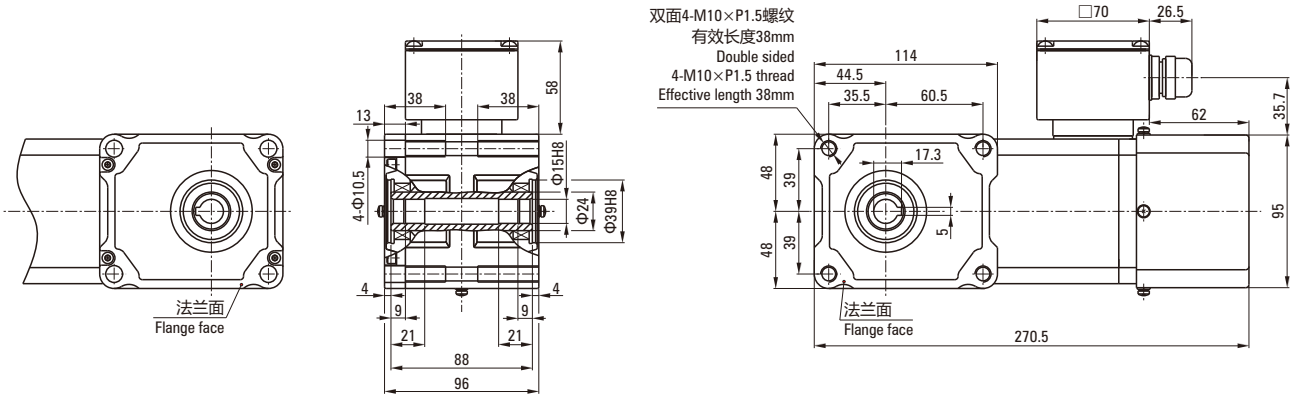
注：带※号的为转矩力限制机种，使用时请阅读本表。Note: The number for the torque limit model, please read this table.

外形图
OUTLINE DRAWING

■ ZDF2-15H10～240-60～90-C(FT)
ZDF2-15H10～240-60～90-C(FTB)
ZDF2-15H10～240-60～90-S(FTB)

ZDF2-15H10～240-60～90-A(FT)
ZDF2-15H10～240-60～90-A(FTB)
ZDF2-15H10～240-60～90-S3(FTB)

ZDF2-15H10～240-60～90-S(FT)
ZDF2-15H10～240-60～90-S3(FT)

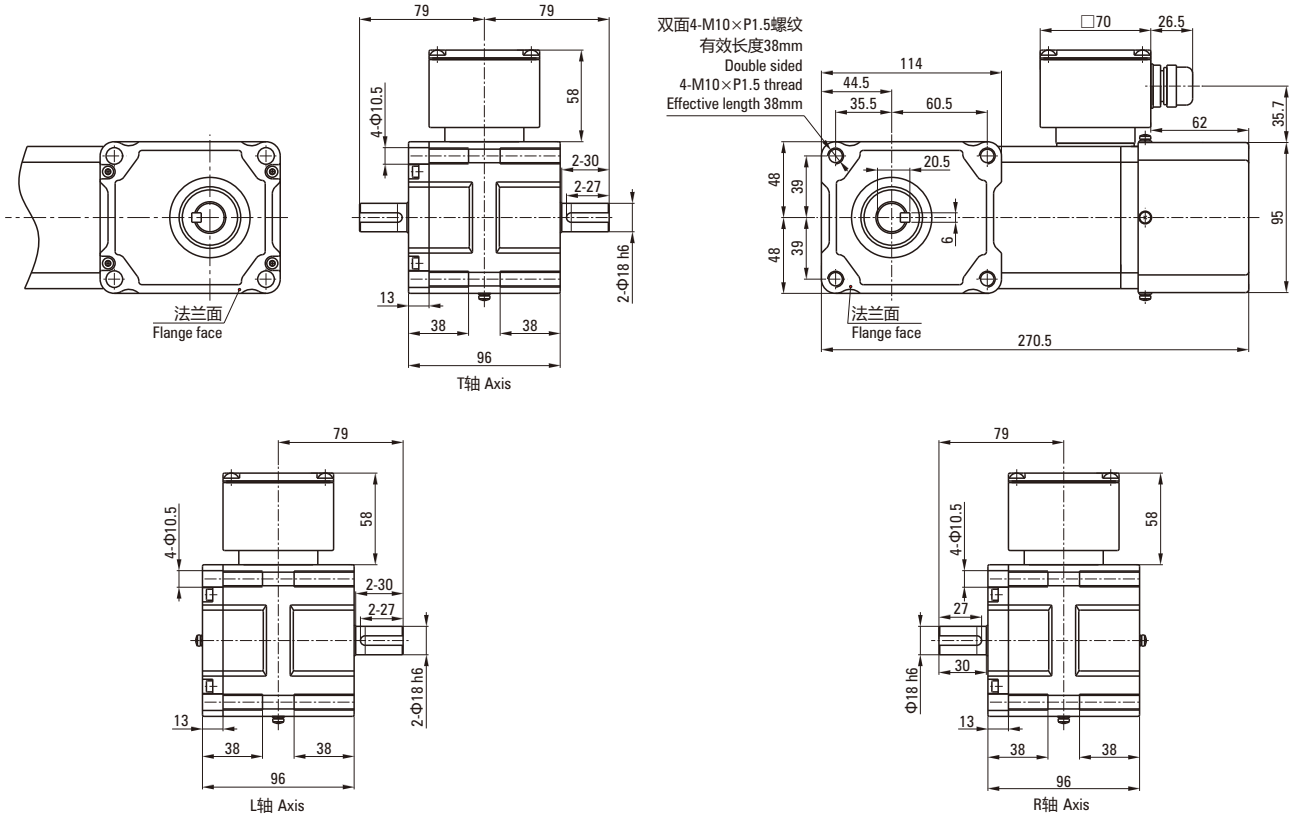


注：常规产品不带接线盒 Note: Conventional products without wiring box

■ ZDF2-18A10[L/R/T]～240-60～90-C(FT)
ZDF2-18A10[L/R/T]～240-60～90-C(FTB)
ZDF2-18A10[L/R/T]～240-60～90-S(FTB)

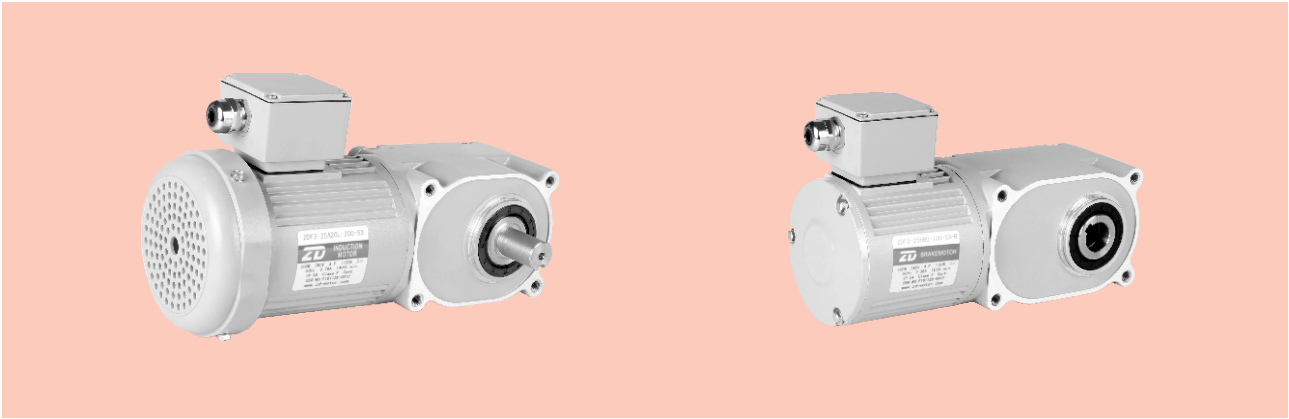
ZDF2-18A10[L/R/T]～240-60～90-A(FT)
ZDF2-18A10[L/R/T]～240-60～90-A(FTB)
ZDF2-18A10[L/R/T]～240-60～90-S3(FTB)

ZDF2-18A10[L/R/T]～240-60～90-S(FT)
ZDF2-18A10[L/R/T]～240-60～90-S3(FT)



注：常规产品不带接线盒 Note: Conventional products without wiring box

ZDF3尺寸图
ZDF3 SIZE CHART



规格・连续额定 Specification And Continuous Rating

型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	
ZDF3-25H□-100-S(B)	100	200	60	0.60	0.56	1700	1.22	2.59	F
		220	50	0.74	0.67	1410	1.85	1.10	
ZDF3-25H□-100-S_3(B)		380	50	0.43	0.67	1410	1.85	1.64	
		460	60	0.41	0.55	1730	2.00	1.80	

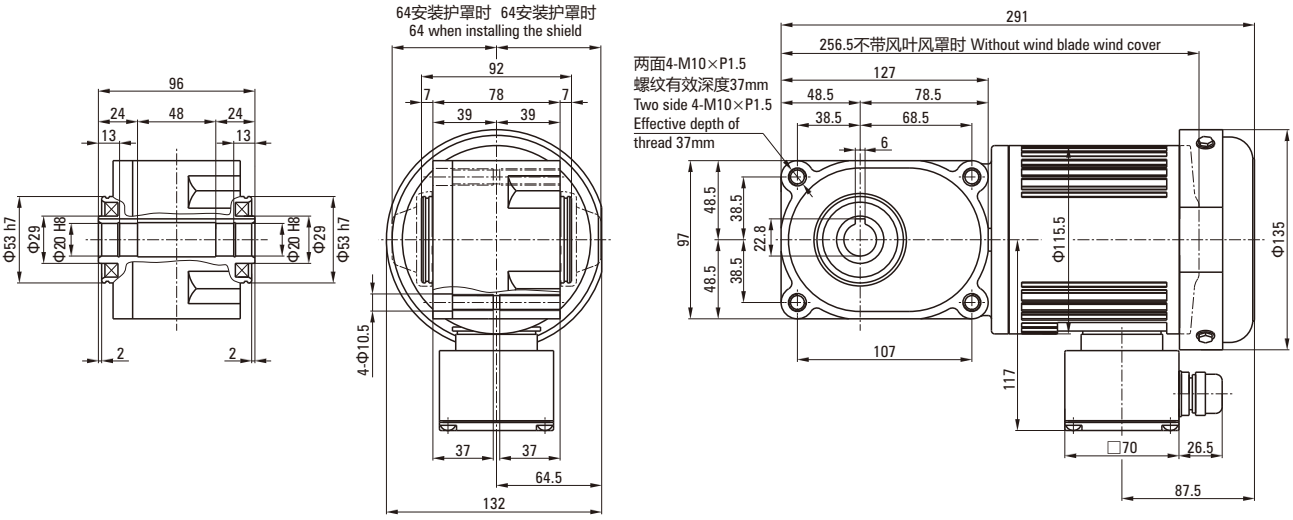
型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	
ZDF3-22A□-100-S(B)	100	200	60	0.60	0.56	1700	1.22	2.59	F
		220	50	0.74	0.67	1410	1.85	1.10	
ZDF3-22A□-100-S_3(B)		380	50	0.43	0.67	1410	1.85	1.64	
		460	60	0.41	0.55	1730	2.00	1.80	

功率 Power	孔径/轴径 Aperture/Axis Diameter	减速比 ReductionRatio	输出轴转速 Output Shaft Speed	输出轴容许转矩 Output Shaft Torque		输出轴容许 Output Shaft Tolerance		输出轴容许 Output Shaft Tolerance	
			r/min	N.m	kgf.m			轴向力负载 Axial Force Load	
W	mm	i	50Hz	50Hz	50Hz	N	kgf	N	kgf
100	20/18	5	300	2.50	0.260	980	100	244	25
		7.5	200	3.80	0.390	1080	110	270	28
		10	150	5.20	0.530	1180	120	294	30
		12	125	6.50	0.660	1270	130	316	32
		15	100	7.70	0.790	1320	135	333	34
		20	75.0	10.8	1.100	1470	150	373	38
		25	60.0	13.0	1.300	1570	160	392	40
		30	50.0	16.0	1.600	1670	170	422	43
		40	37.5	21.0	2.100	1810	185	451	46
		50	30.0	25.0	2.600	1860	190	471	18
		60	25.0	31.0	3.200	1860	190	471	48
	25/22	80	18.8	39.0	4.000	2550	260	637	65
		100	15.0	49.0	5.000	2550	260	637	65
		120	12.5	59.0	6.000	2550	260	637	65
		160	9.40	78.0	8.000	2550	260	637	65
		200	7.50	98.0	10.01	2550	260	637	65
		※240	6.30	101	10.31	2550	260	637	65

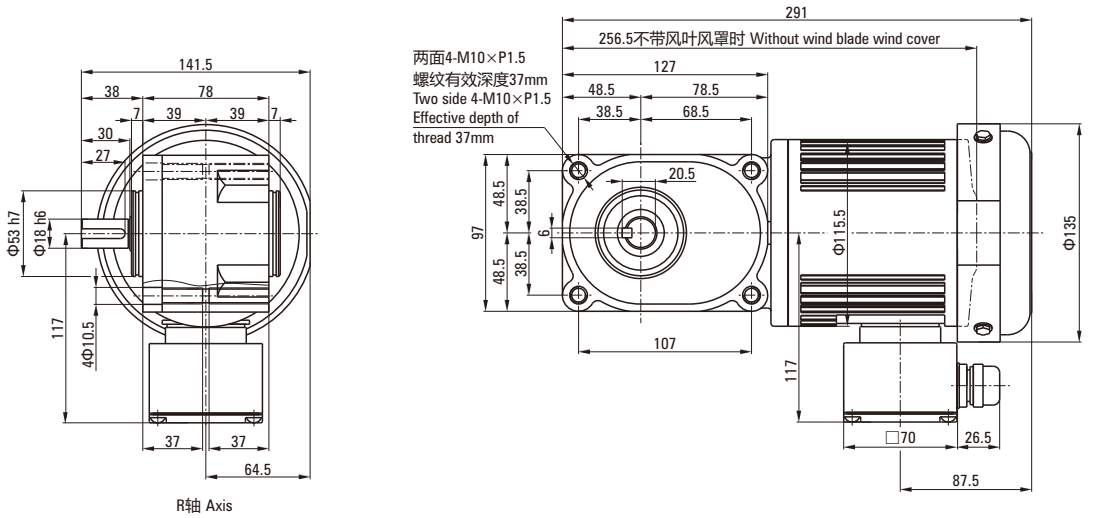
注：带※号的为转矩力限制机种，使用时请阅读本表。Note: The number for the torque limit model, please read this table.

外形图
OUTLINE DRAWING

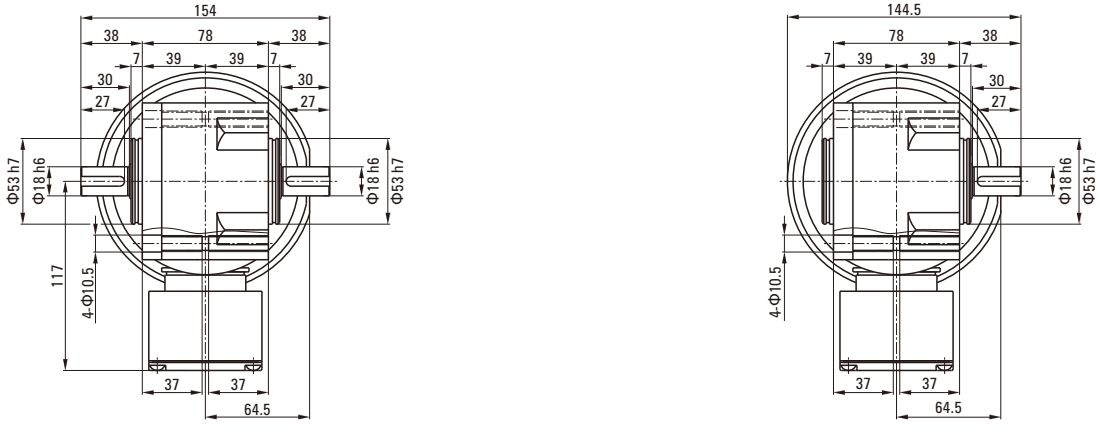
ZDF3-20H5～60-100-S(B)　ZDF3-20H5～60-100-S_3(B)



ZDF3-18A5～60$^{L}_{R}$$_{T}$-100-S(B)　ZDF3-18H5～60$^{L}_{R}$$_{T}$-100-$S_3$(B)



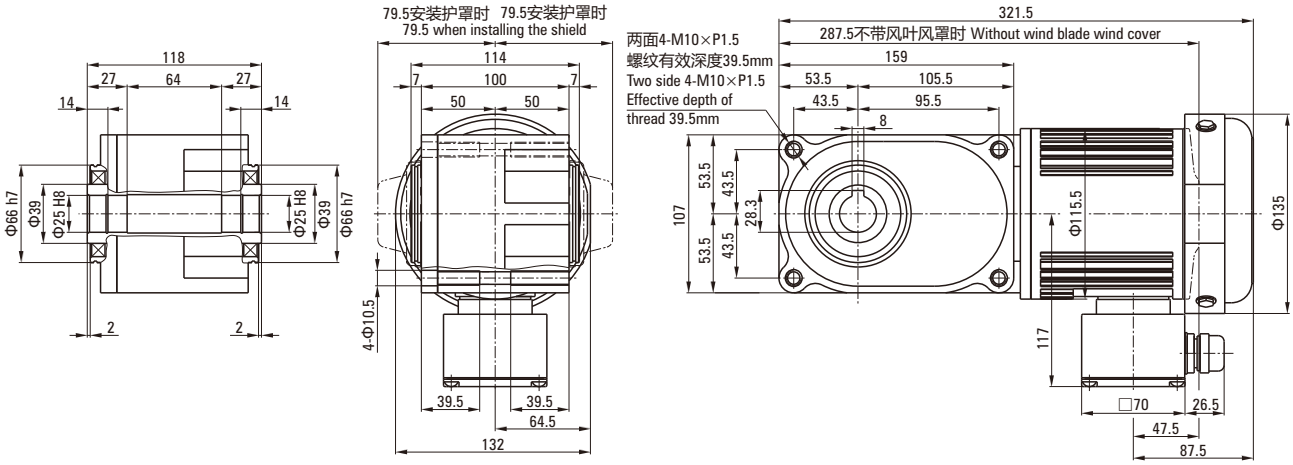
R轴 Axis



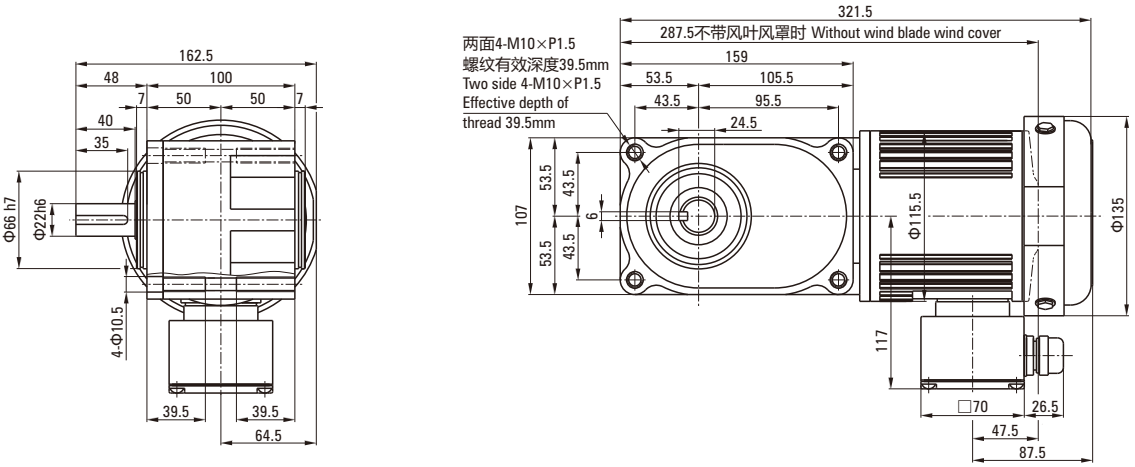
T轴 Axis　　L轴 Axis

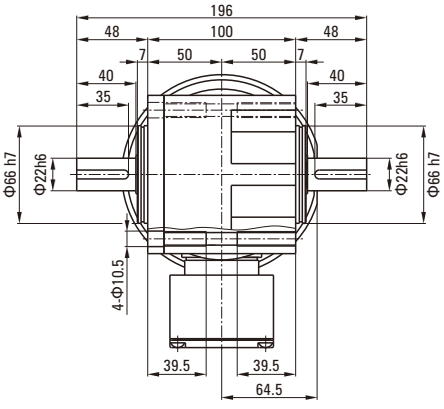
外形图
OUTLINE DRAWING

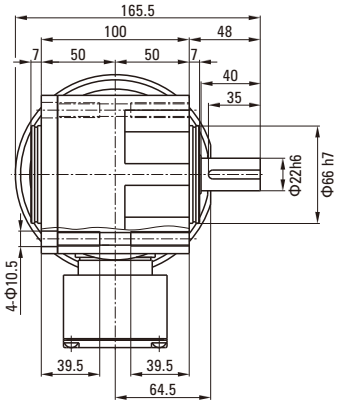
ZDF3-25H80～240-100-S(B)　ZDF3-25H80～240-100-S_3(B)



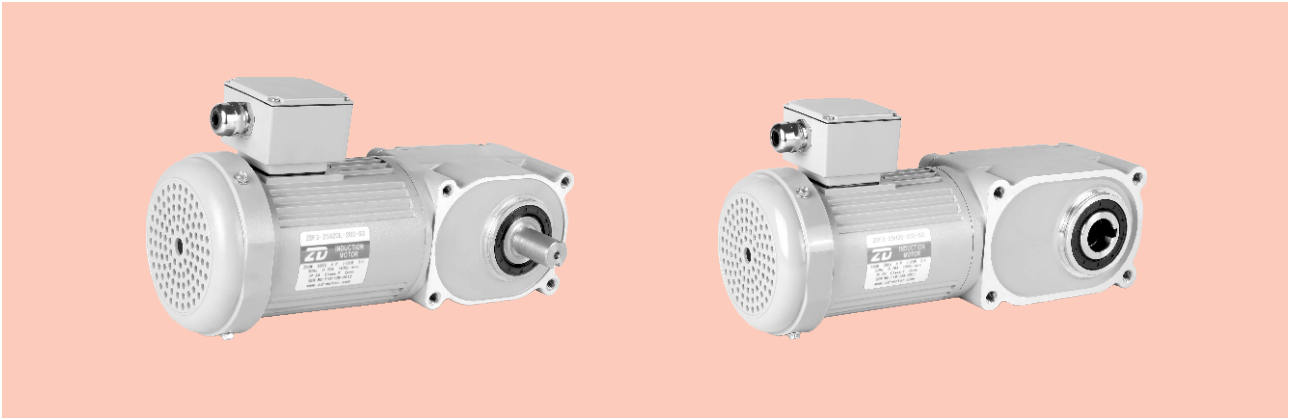
ZDF3-22A80～240$^{L}_{R}$$_{T}$-100-S(B)　ZDF3-22A80～240$^{L}_{R}$$_{T}$-100-$S_3$(B)







ZDF3尺寸图
ZDF3 SIZE CHART



规格・连续额定 Specification And Continuous Rating

型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	
ZDF3-25H□-200-S(B)	200	200	60	1.10	1.12	1700	2.25	4.93	F
ZDF3-30H□-200-S(B)		220	50	1.35	1.36	1400	3.50	5.40	
ZDF3-25H□-200-S_3(B)		380	50	0.78	1.36	1400	3.50	3.10	
ZDF3-30H□-200-S_3(B)		460	60	0.78	1.12	1740	3.80	3.75	

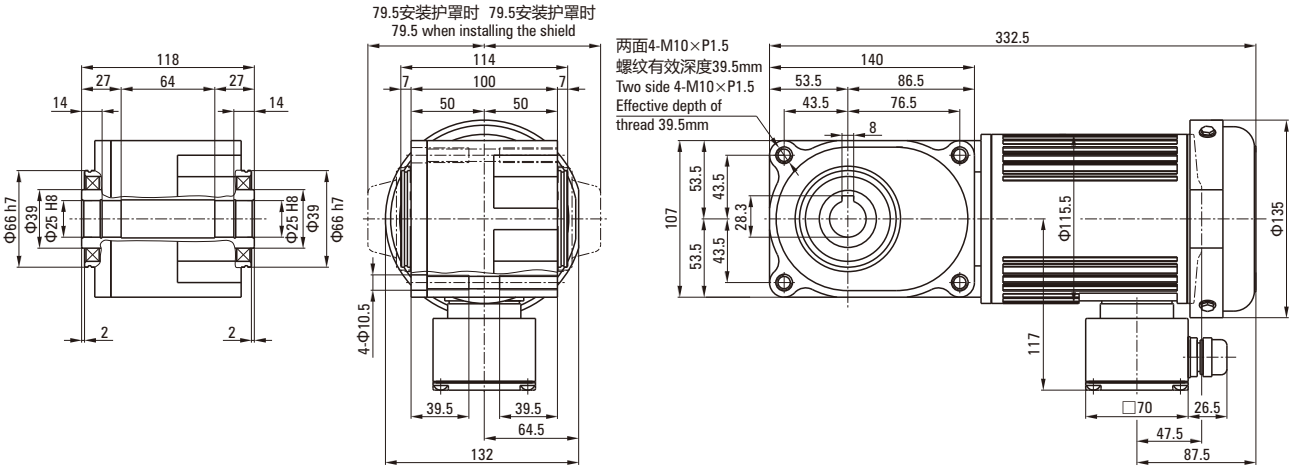
型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	
ZDF3-22A□-200-S(B)	200	200	60	1.10	1.12	1700	2.25	4.93	F
ZDF3-28A□-200-S(B)		220	50	1.35	1.36	1400	3.50	5.40	
ZDF3-22A□-200-S_3(B)		380	50	0.78	1.36	1400	3.50	3.10	
ZDF3-28A□-200-S_3(B)		460	60	0.78	1.12	1740	3.80	3.75	

功率 Power	孔径/轴径 Aperture/Axis Diameter	减速比 ReductionRatio	输出轴转速 Output Shaft Speed	输出轴容许转矩 Output Shaft Torque		输出轴容许 Output Shaft Tolerance		输出轴容许 Output Shaft Tolerance	
			r/min	N.m	kgf.m			轴向力负载 Axial Force Load	
W	mm	i	50Hz	50Hz	50Hz	N	kgf	N	kgf
200	25/22	5	300.0	5.5	0.560	1230	126	307	31
		7.5	200.0	8	0.790	1370	140	342	35
		10	150.0	11	1.130	1520	155	380	39
		12	125.0	13	1.350	1620	165	405	41
		15	100.0	17	1.690	1720	176	429	44
		20	75.00	22	2.260	1860	190	466	48
		25	60.00	28	2.820	2010	205	502	51
		30	50.00	33	3.380	2110	215	527	54
		40	37.50	44	4.510	2300	235	576	59
		50	30.00	55	5.640	2450	250	613	63
		60	25.00	66	6.770	2550	260	637	65
	30/28	80	18.80	80	8.120	3090	315	775	79
		100	15.00	99	10.15	3140	320	785	80
		120	12.50	119	12.18	3140	320	785	80
		160	9.400	159	16.24	3140	320	785	80
		※200	7.500	184	18.80	3140	320	785	80
		※240	6.300	184	18.80	3140	320	785	80

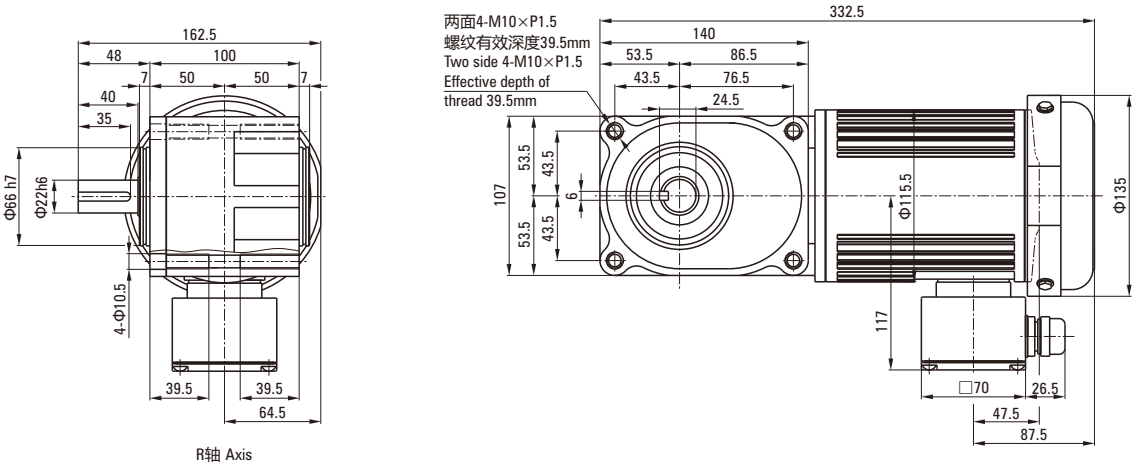
注：带※号的为转矩力限制机种，使用时请阅读本表。Note: The number for the torque limit model, please read this table.

外形图
OUTLINE DRAWING

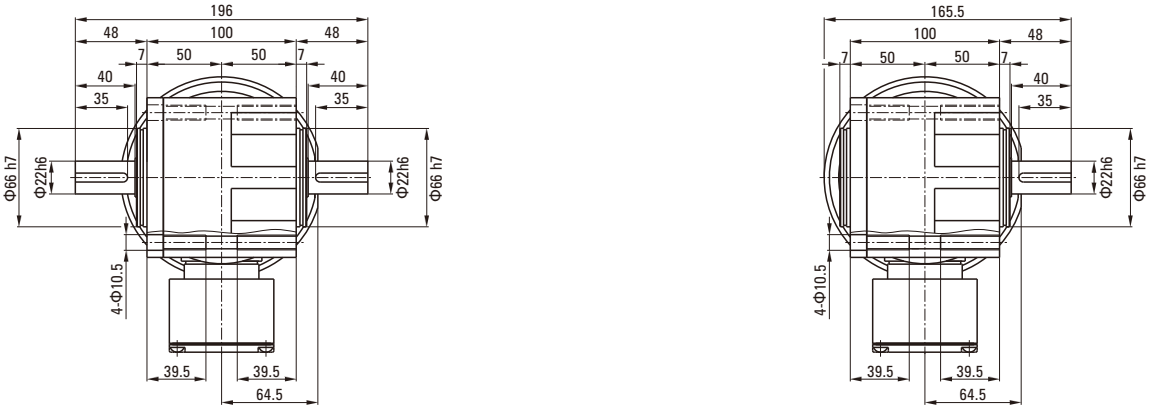
ZDF3-25H5～60-200-S(B)　ZDF3-25H5～60-200-S_3(B)



ZDF3-22A5～60$^{L}_{R}$$_{T}$-200S-(B)　ZDF3-22A5～60$^{L}_{R}$$_{T}$-200-$S_3$(B)



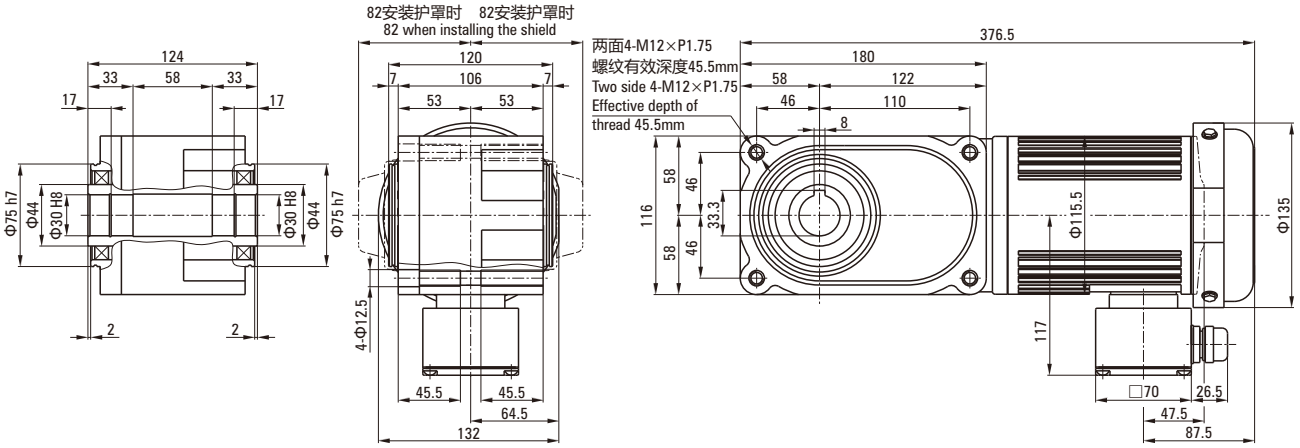
R轴 Axis



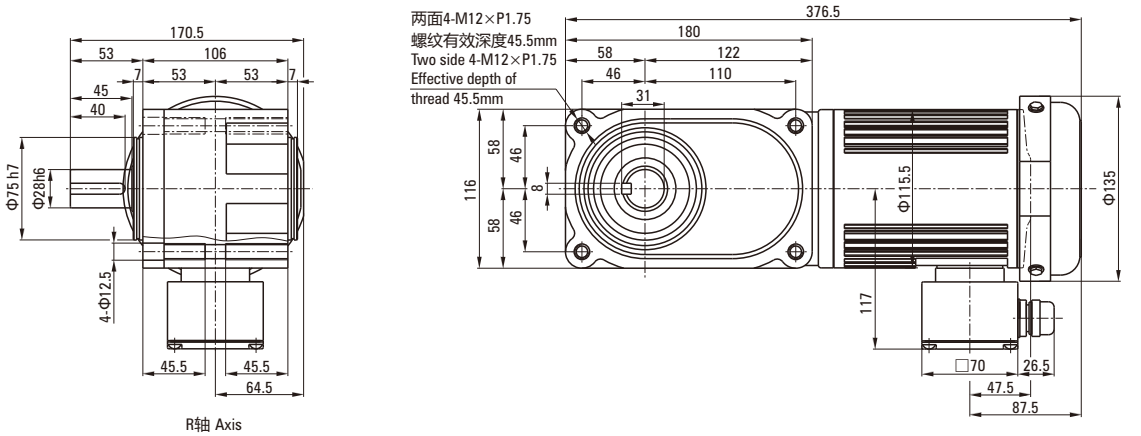
T轴 Axis　　L轴 Axis

外形图
OUTLINE DRAWING

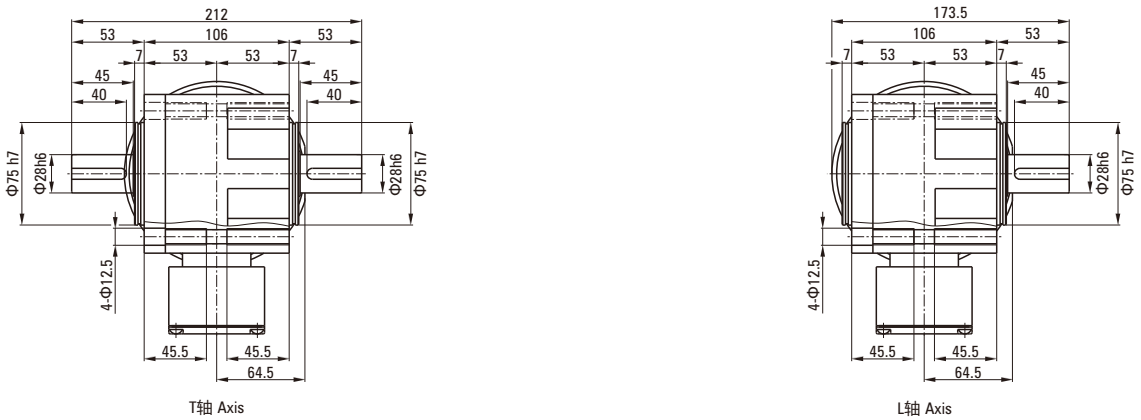
ZDF3-30H80～240-200-S(B)　ZDF3-30H80～240-200-S_3(B)



ZDF3-28A80～240$^{L}_{R}$$_{T}$-200-S(B)　ZDF3-28A80～240$^{L}_{R}$$_{T}$-200-$S_3$(B)



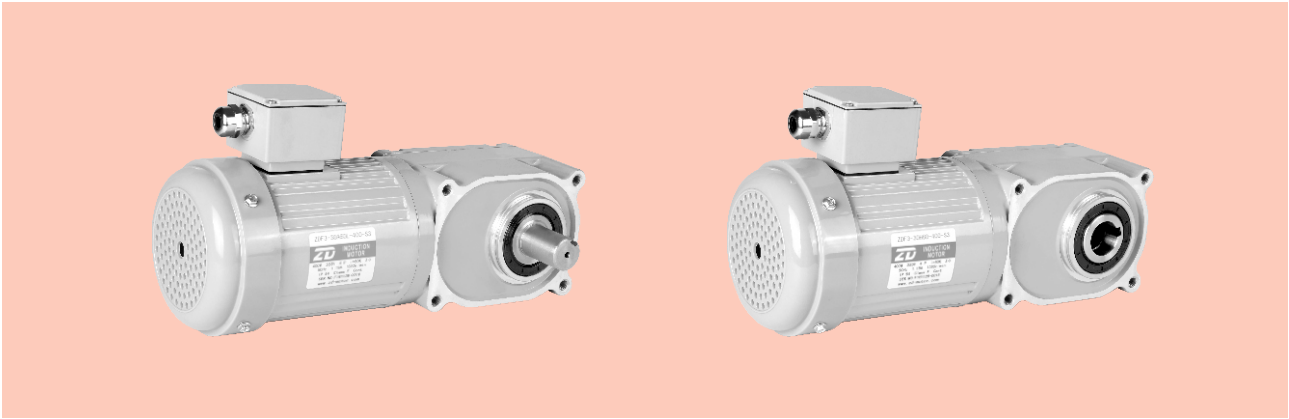
R轴 Axis



T轴 Axis

L轴 Axis

ZDF3尺寸图
ZDF3 SIZE CHART



规格・连续额定 Specification And Continuous Rating

型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	
ZDF3-30H□-400-S(B)	400	200	60	1.97	2.31	1650	3.80	7.5	F
ZDF3-35H□-400-S(B)		220	50	2.00	2.75	1380	6.90	9.5	
ZDF3-30H□-400-S_3(B)		380	50	1.19	2.75	1380	6.90	5.5	
ZDF3-35H□-400-S_3(B)		460	60	1.11	2.20	1730	7.30	6.3	

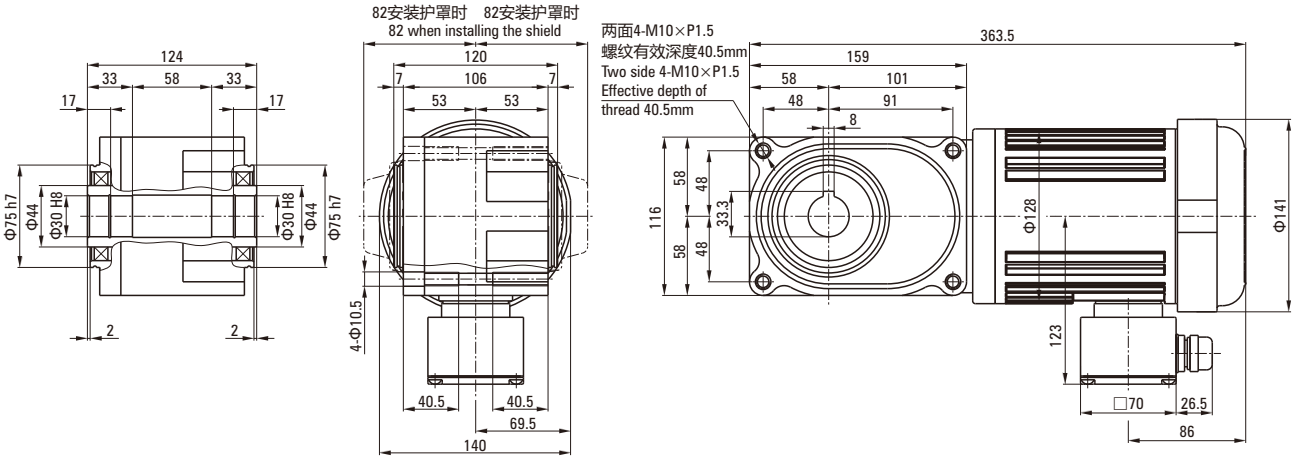
型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	
ZDF3-28A□-400-S(B)	400	200	60	1.97	2.31	1650	3.80	7.5	F
ZDF3-32A□-400-S(B)		220	50	2.00	2.75	1380	6.90	9.5	
ZDF3-28A□-400-S_3(B)		380	50	1.19	2.75	1380	6.90	5.5	
ZDF3-32A□-400-S_3(B)		460	60	1.11	2.20	1730	7.30	6.3	

功率 Power	孔径/轴径 Aperture/Axis Diameter	减速比 ReductionRatio	输出轴转速 Output Shaft Speed	输出轴容许转矩 Output Shaft Torque		输出轴容许 Output Shaft Tolerance		输出轴容许 Output Shaft Tolerance	
			r/min	N.m	kgf.m			轴向力负载 Axial Force Load	
W	mm	i	50Hz	50Hz	50Hz	N	kgf	N	kgf
400	30/28	5	300.0	11	1.130	1520	155	375	38
		7.5	200.0	17	1.730	1760	180	438	45
		10	150.0	22	2.260	1910	195	475	48
		12	125.0	27	2.710	2060	210	506	52
		15	100.0	33	3.380	2160	220	539	55
		20	75.00	44	4.510	2400	245	600	61
		25	60.00	55	5.640	2550	260	637	65
		30	50.00	66	6.770	2650	270	662	68
		40	37.50	88	9.020	2840	290	711	73
		50	30.00	111	11.28	2990	305	747	76
		60	25.00	133	13.53	3090	315	767	78
	35/32	80	18.80	159	16.24	3480	355	873	89
		100	15.00	199	20.30	3530	360	833	85
		120	12.50	239	24.36	3530	360	833	85
		※160	9.400	270	27.55	3630	370	912	93
		※200	7.500	270	27.55	3630	370	912	93
		※240	6.300	270	27.55	3630	370	912	93

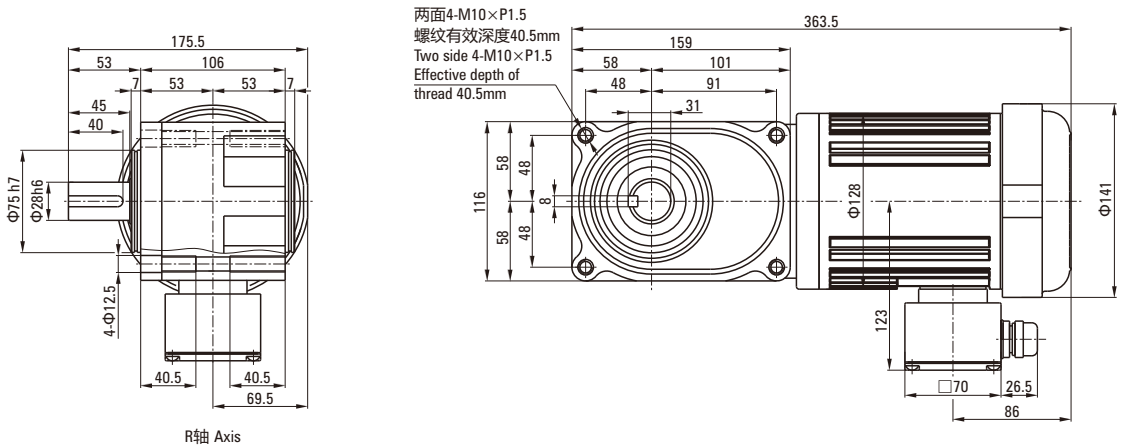
注：带※号的为转矩力限制机种，使用时请阅读本表。Note: The number for the torque limit model, please read this table.

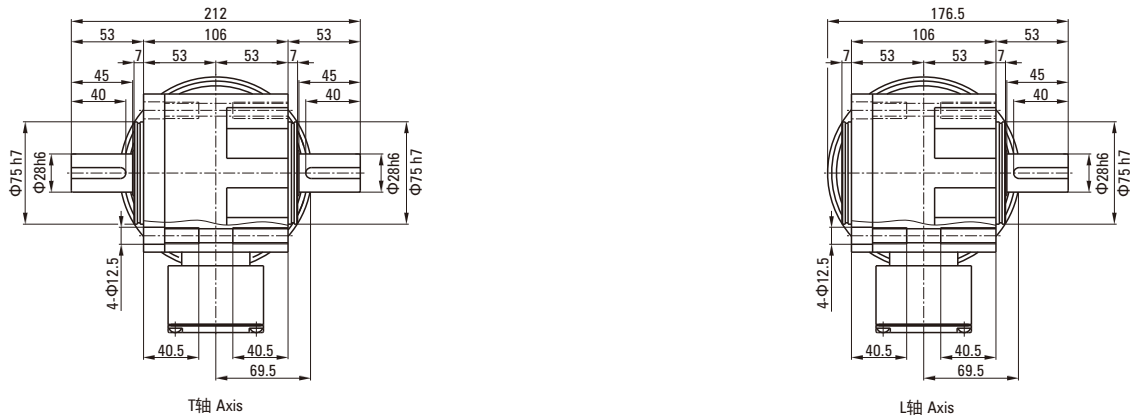
外形图
OUTLINE DRAWING

ZDF3-30H5～60-400-S(B)　ZDF3-30H5～60-400-S_3(B)



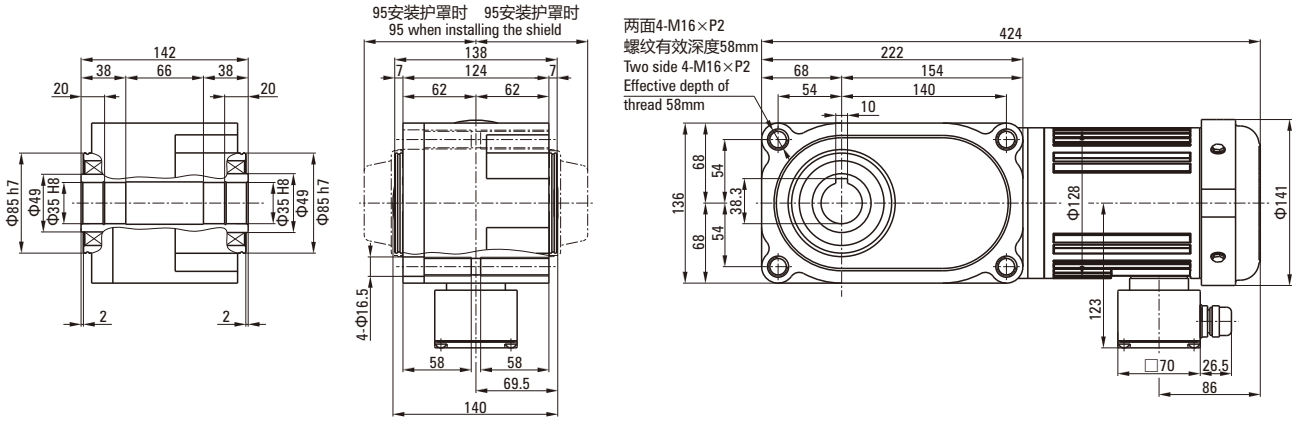
ZDF3-28A5～60$^{L}_{R}$$_{T}$-400-S(B)　ZDF3-28A5～60$^{L}_{R}$$_{T}$-400-$S_3$(B)



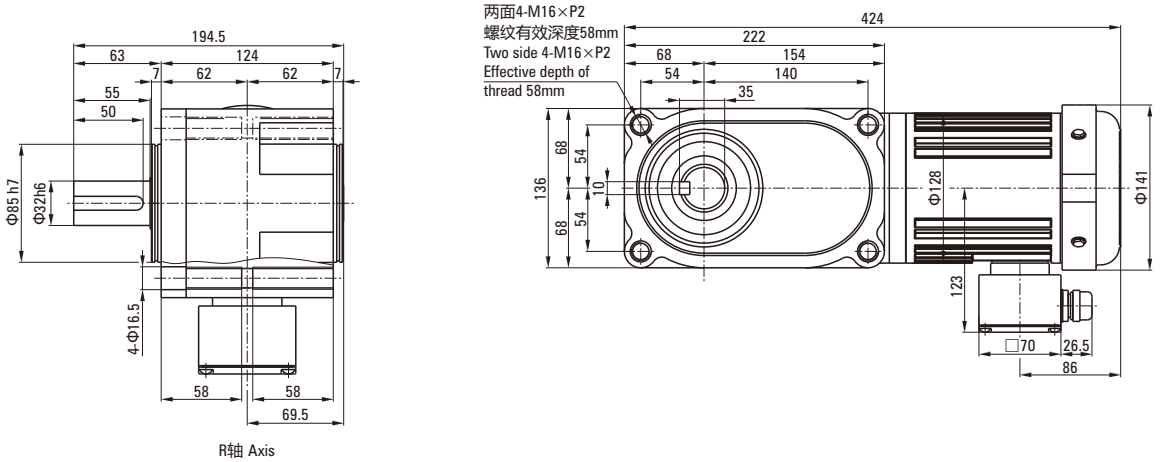


外形图
OUTLINE DRAWING

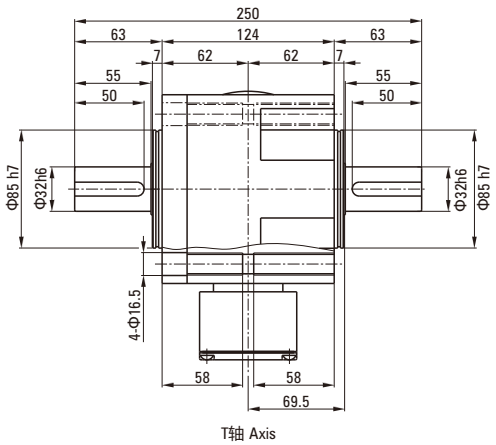
ZDF3-35H80～240-400-S(B)　ZDF3-35H80～240-400-S_3(B)



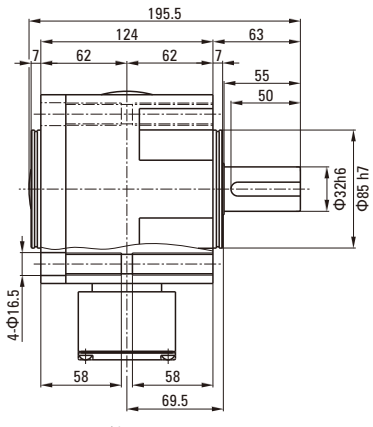
ZDF3-32A80～240$^{L}_{R}_{T}$-400-S(B)　ZDF3-32A80～240$^{L}_{R}_{T}$-400-S_3(B)



R轴 Axis

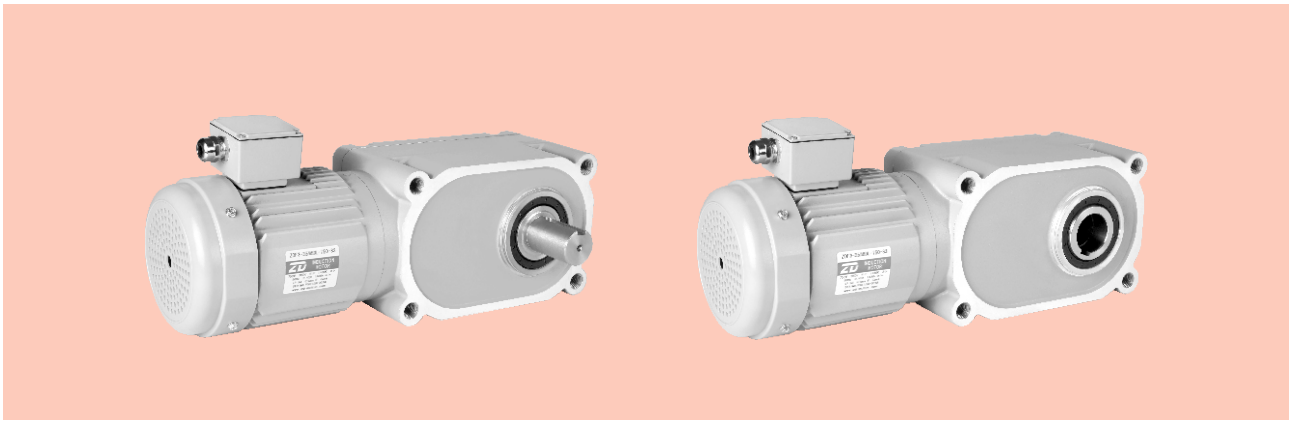


T轴 Axis



L轴 Axis

ZDF3尺寸图
ZDF3 SIZE CHART



规格・连续额定 Specification And Continuous Rating

型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	
ZDF3-35H□-750-S(B)	750	200	60	3.45	4.22	1700	9.20	10.0	F
ZDF3-45H□-750-S(B)		220	50	4.24	5.00	1430	15.5	12.0	
ZDF3-35H□-750-S_3(B)		380	50	2.45	5.00	1430	15.5	12.0	
ZDF3-45H□-750-S_3(B)		460	60	2.28	4.12	1730	16.0	13.2	

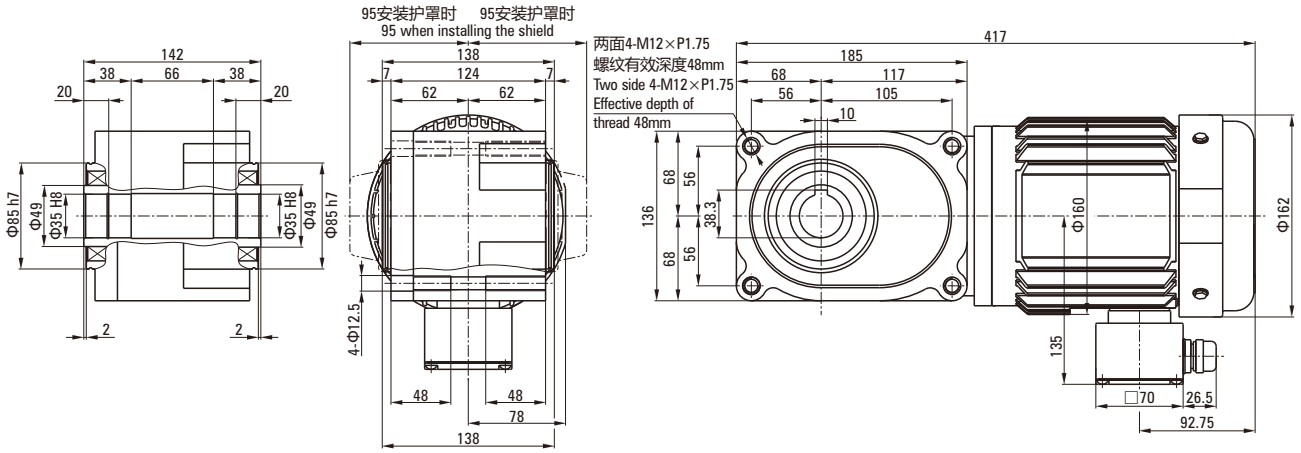
型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	
ZDF3-32A□-750-S(B)	750	200	60	3.45	4.22	1700	9.20	10.0	F
ZDF3-40A□-750-S(B)		220	50	4.24	5.00	1430	15.5	12.0	
ZDF3-32A□-750-S_3(B)		380	50	2.45	5.00	1430	15.5	12.0	
ZDF3-40A□-750-S_3(B)		460	60	2.28	4.12	1730	16.0	13.2	

功率 Power	孔径/轴径 Aperture/Axis Diameter	减速比 ReductionRatio	输出轴转速 Output Shaft Speed	输出轴容许转矩 Output Shaft Torque		输出轴容许 Output Shaft Tolerance		输出轴容许 Output Shaft Tolerance	
			r/min	N.m	kgf.m			轴向力负载 Axial Force Load	
W	mm	i	50Hz	50Hz	50Hz	N	kgf	N	kgf
750	35/32	5	300.0	21	2.110	1960	200	500	51
		7.5	200.0	30	3.100	2250	230	567	58
		10	150.0	41	4.230	2450	250	613	63
		12	125.0	50	5.070	2600	265	669	68
		15	100.0	62	6.340	2740	280	686	70
		20	75.00	83	8.460	2990	305	747	76
		25	60.00	104	10.57	3190	326	796	81
		30	50.00	124	12.69	3280	335	821	84
		40	37.50	166	16.91	3480	355	870	89
		50	30.00	207	21.14	3480	355	870	89
		60	25.00	249	25.37	3480	355	870	89
	45/40	80	18.80	298	30.45	4750	485	1177	120
		100	15.00	373	38.06	4750	485	1177	120
		120	12.50	448	45.67	4750	485	1177	120
		※160	9.400	554	56.53	5190	530	1275	130
		※200	7.500	554	56.53	5190	530	1275	130
		※240	6.300	554	56.53	5190	530	1275	130

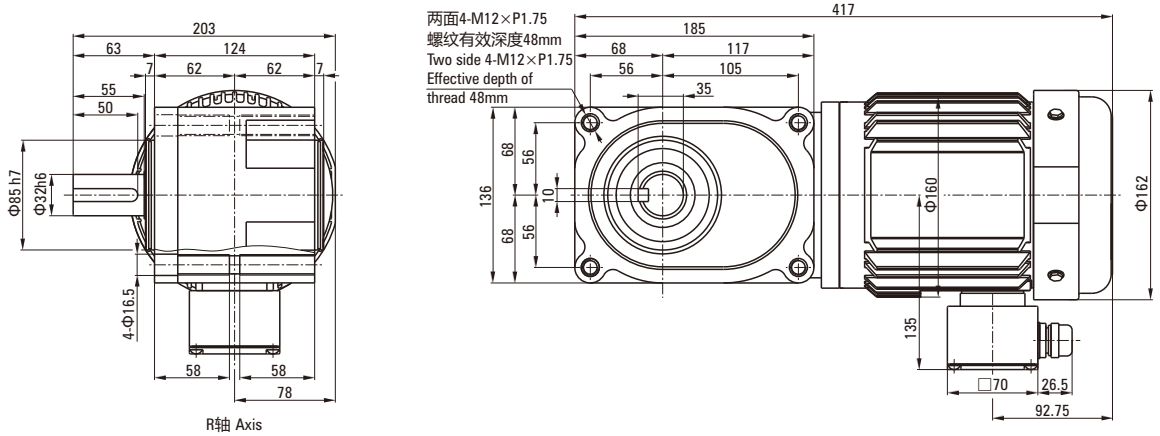
注：带※号的为转矩力限制机种，使用时请阅读本表。Note: The number for the torque limit model, please read this table.

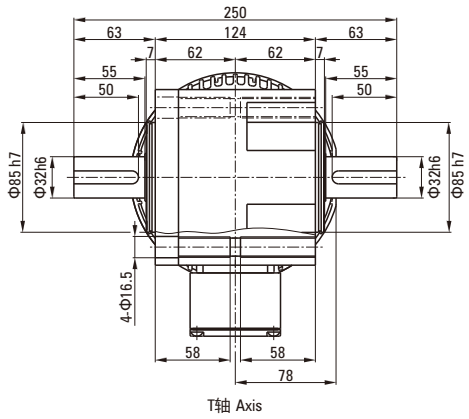
外形图
OUTLINE DRAWING

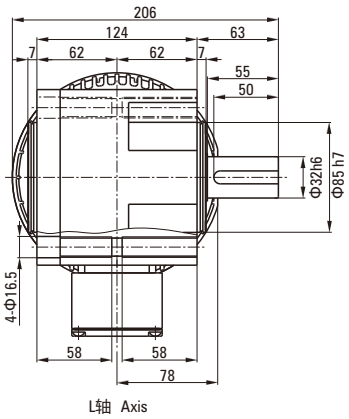
ZDF3-35H5～60-750-S(B)　ZDF3-35H5～60-750-S_3(B)



ZDF3-32A5～60$^{L}_{R}$$_{T}$-750-S(B)　ZDF3-32A5～60$^{L}_{R}$$_{T}$-750-$S_3$(B)

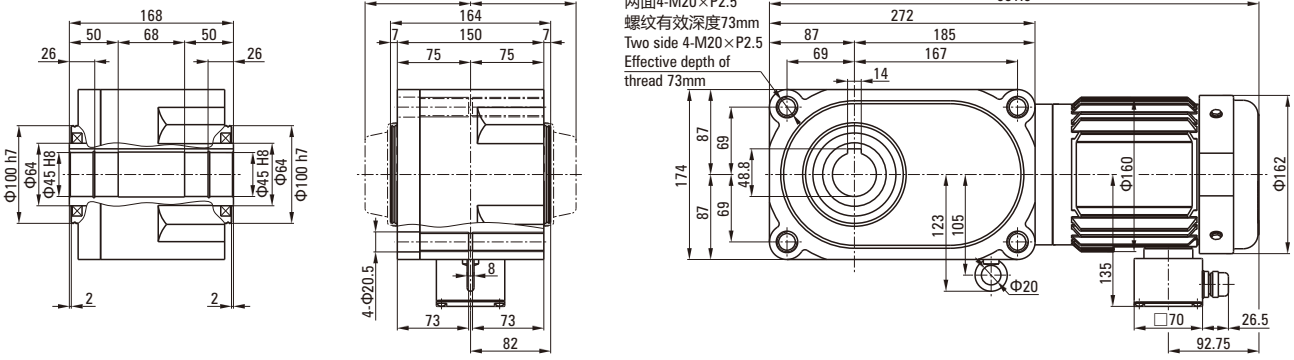




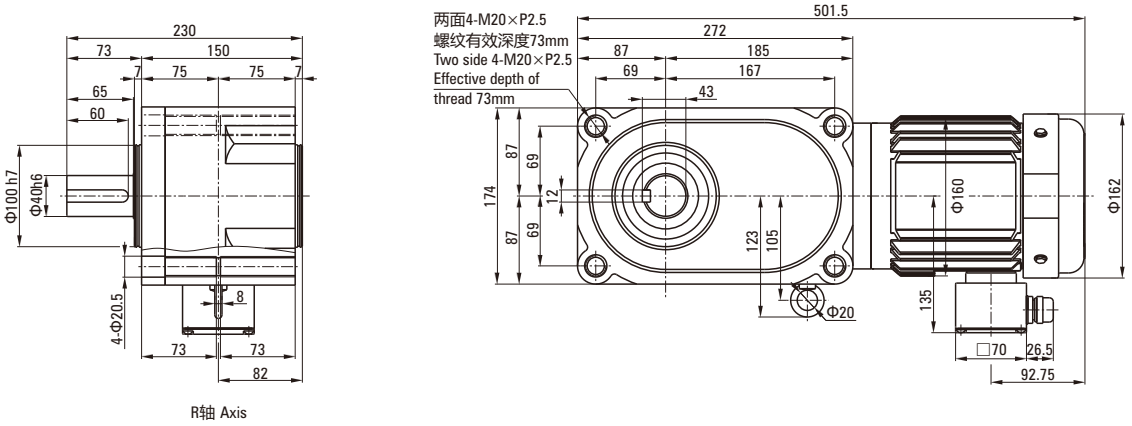


外形图
OUTLINE DRAWING

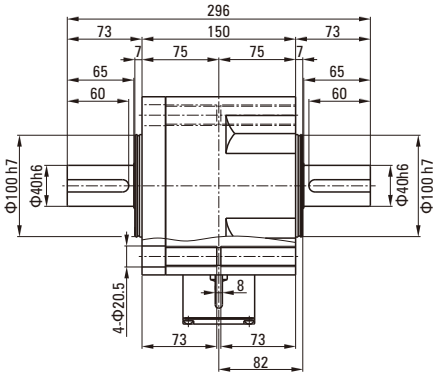
ZDF3-45H80～240-750-S(B)　ZDF3-45H80～240-750-S_3(B)



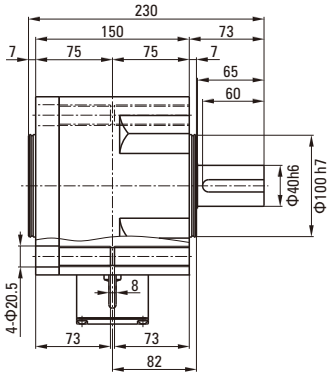
ZDF3-40A80～240$^{L}_{R}_{T}$-750-S(B)　ZDF3-40A80～240$^{L}_{R}_{T}$-750-S_3(B)



R轴 Axis

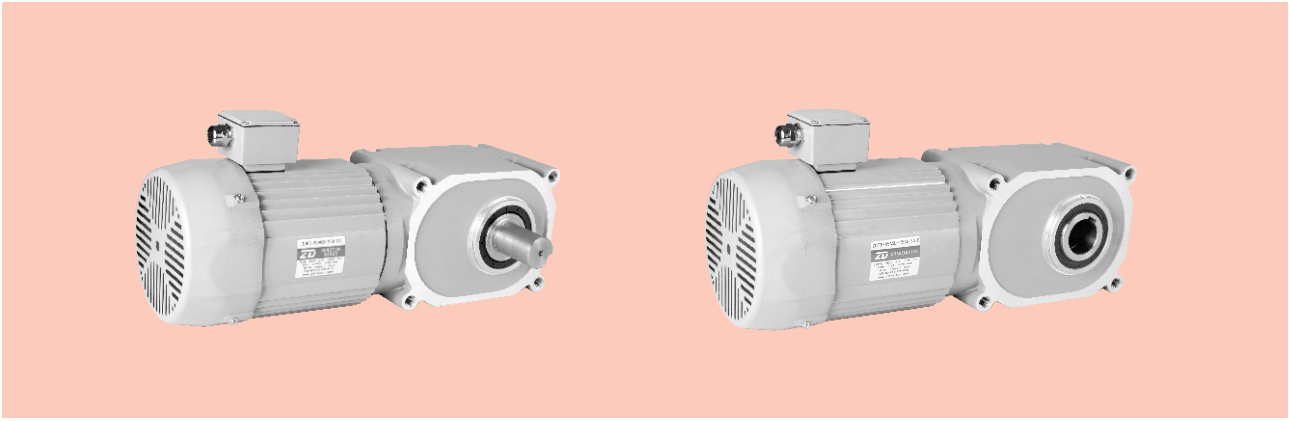


T轴 Axis



L轴 Axis

ZDF3尺寸图
ZDF3 SIZE CHART



规格・连续额定 Specification And Continuous Rating

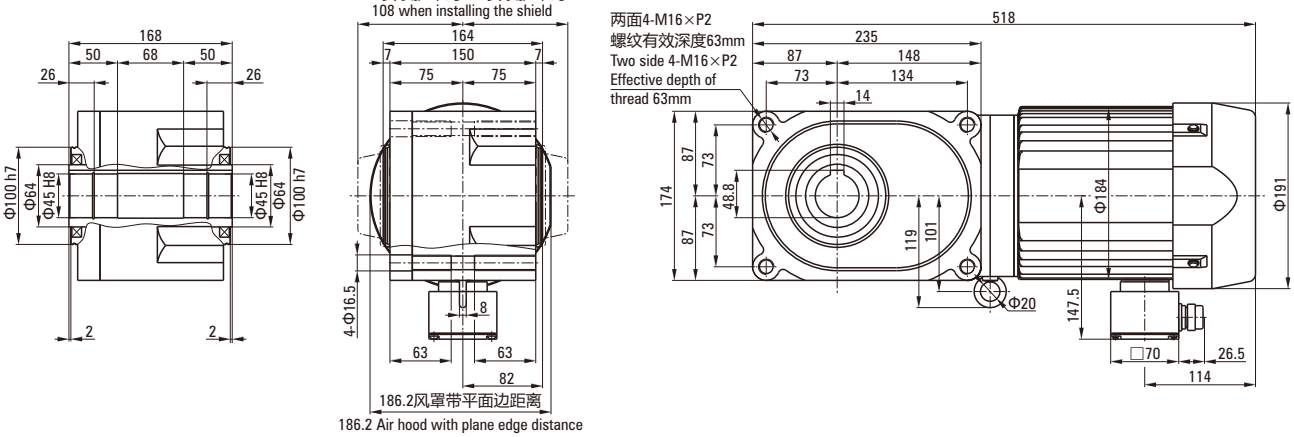
型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	
ZDF3-45H□-1500-S(B)	1500	200	60	7.10	8.70	1650	15.60	30.00	F
		220	50	6.70	10.2	1410	29.50	38.00	
ZDF3-45H□-1500-S_3(B)		380	50	3.70	10.2	1400	22.30	31.00	
		460	60	3.30	8.50	1740	31.60	24.00	

型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	
ZDF3-40A□-1500-S(B)	1500	200	60	7.10	8.70	1650	15.60	30.00	F
		220	50	6.70	10.2	1410	29.50	38.00	
ZDF3-40A□-1500-S_3(B)		380	50	3.70	10.2	1400	22.30	31.00	
		460	60	3.30	8.50	1740	31.60	24.00	

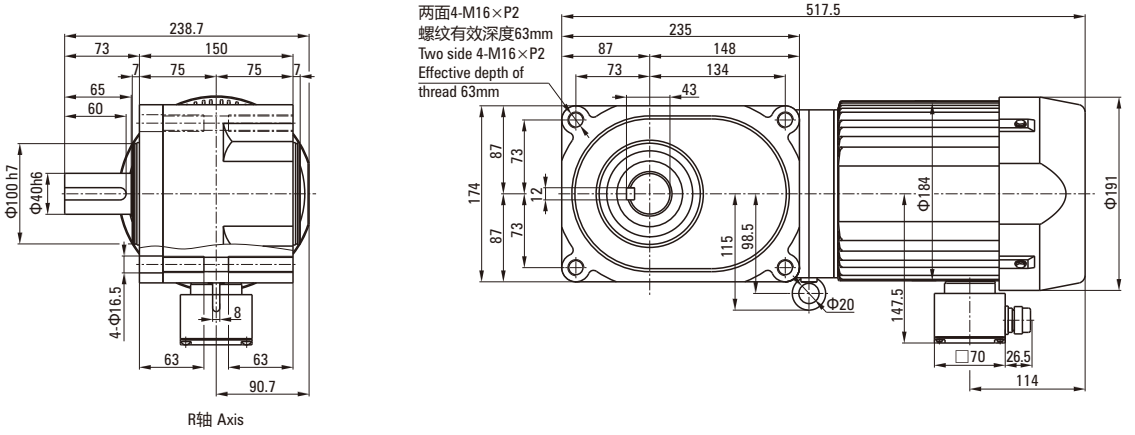
功率 Power	孔径/轴径 Aperture/Axis Diameter	减速比 ReductionRatio	输出轴转速 Output Shaft Speed	输出轴容许转矩 Output Shaft Torque		输出轴容许 Output Shaft Tolerance		输出轴容许 Output Shaft Tolerance	
			r/min	N.m	kgf.m			轴向力负载 Axial Force Load	
W	mm	i	50Hz	50Hz	50Hz	N	kgf	N	kgf
1500	45/40	5	300.0	41	4.230	2550	260	800	82
		7.5	200.0	62	6.330	2940	300	900	92
		10	150.0	83	8.460	3330	340	967	99
		12	125.0	99	10.15	3630	370	1040	106
		15	100.0	124	12.69	3920	400	1067	109
		20	75.00	166	16.91	4070	415	1067	109
		25	60.00	207	21.14	4460	455	1067	109
		30	50.00	249	25.37	4700	480	1067	109
		40	37.50	332	33.83	4750	485	1067	109
		50	30.00	414	42.29	4750	485	1067	109
		60	25.00	497	50.74	4750	485	1067	109

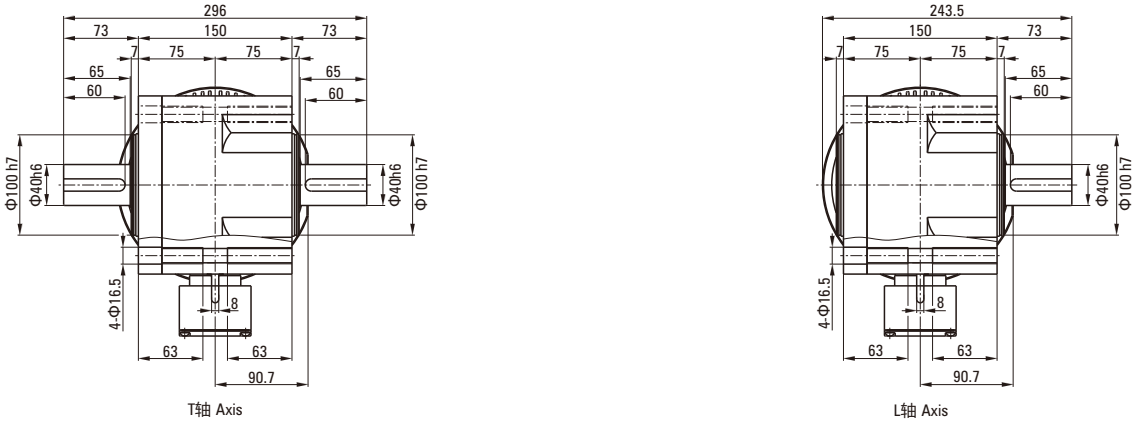
外形图
OUTLINE DRAWING

ZDF3-45H5～60-1500-S(B)　ZDF3-45H5～60-1500-S_3(B)

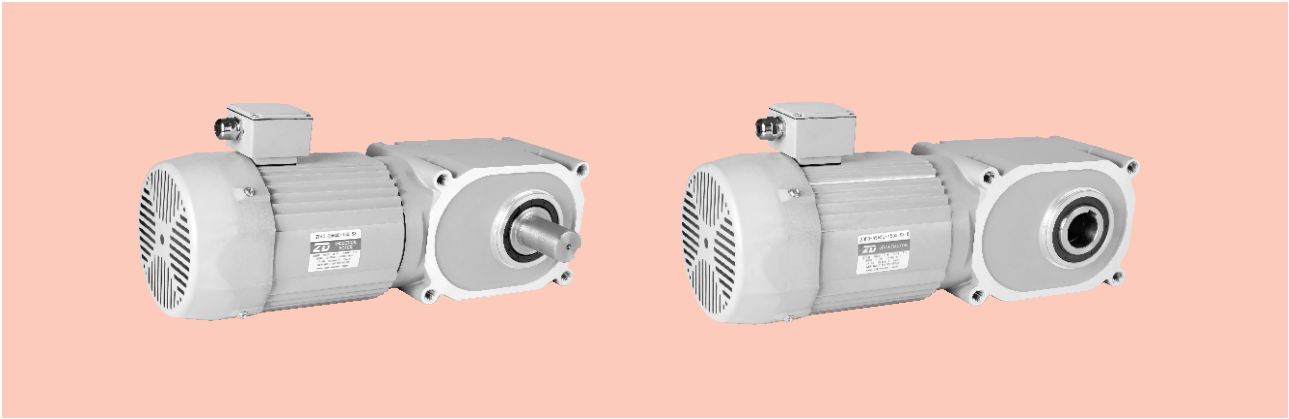


ZDF3-40A5～60$^{L}_{R}{}_{T}$-1500-S(B)　ZDF3-40A5～60$^{L}_{R}{}_{T}$-1500-S_3(B)





ZDF3尺寸图
ZDF3 SIZE CHART



规格・连续额定 Specification And Continuous Rating

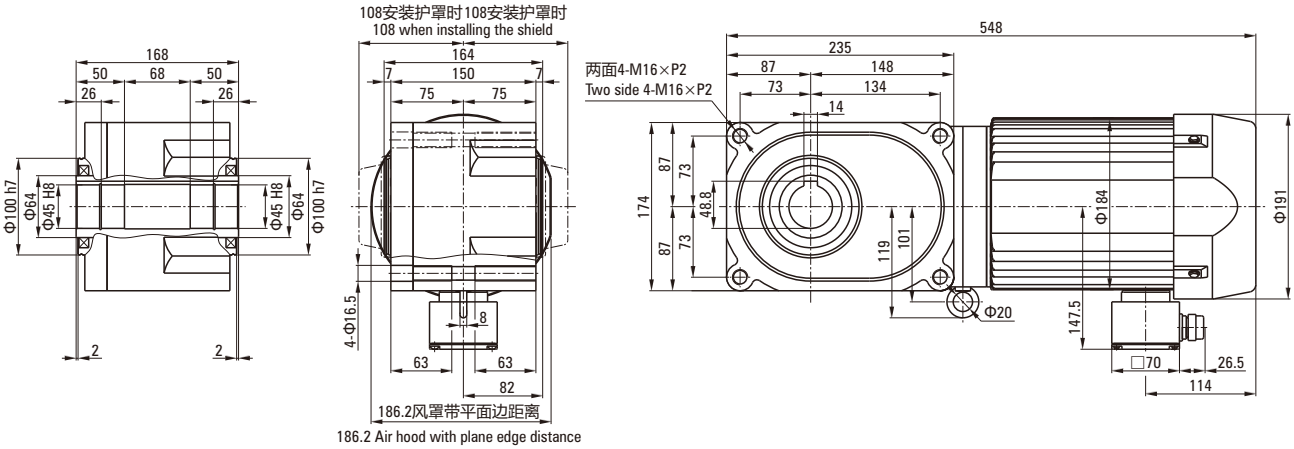
型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	
ZDF3-45H□-2200-S	2200	200	60	8.50	12.4	1700	34.00	52.00	F
		220	50	8.70	14.7	1430	70.00	69.00	
ZDF3-45H□-2200-S_3		380	50	5.00	14.7	1430	70.00	40.00	
		460	60	4.50	12.0	1740	83.00	46.00	

型号 Model	输出功率 Output Power	电压 Voltage	频率 Frequency	额定电流 Rated Current	额定转矩 Rated Torque	额定转速 Rated Speed	堵转转矩 Locked Rotor Torque	堵转电流 Locked Rotor Current	绝缘等级 Insulation Grade
	W	V	Hz	A	N.m	r/min	N.m	A	
ZDF3-40A□-2200-S	2200	200	60	8.50	12.4	1700	34.00	52.00	F
		220	50	8.70	14.7	1430	70.00	69.00	
ZDF3-40A□-2200-S_3		380	50	5.00	14.7	1430	70.00	40.00	
		460	60	4.50	12.0	1740	83.00	46.00	

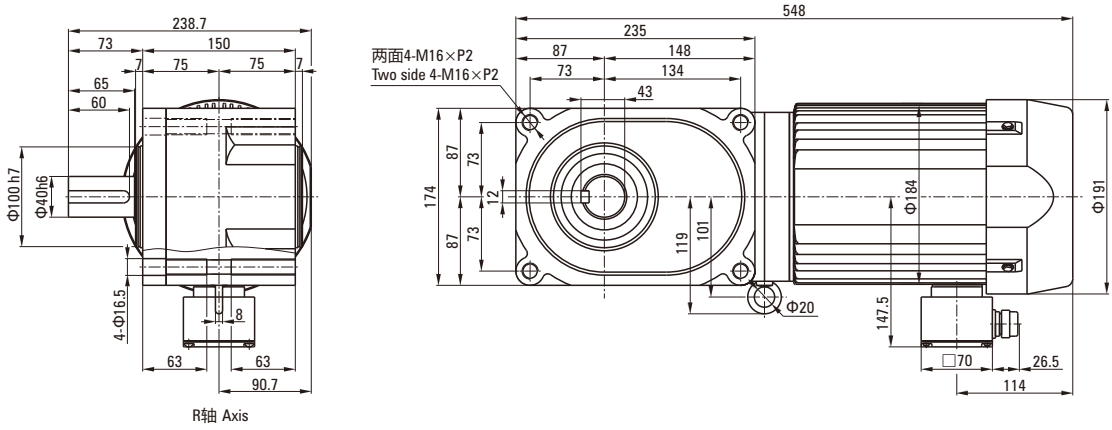
功率 Power	孔径/轴径 Aperture/Axis Diameter	减速比 ReductionRatio	输出轴转速 Output Shaft Speed	输出轴容许转矩 Output Shaft Torque		输出轴容许 Output Shaft Tolerance		输出轴容许 Output Shaft Tolerance	
			r/min	N.m	kgf.m			轴向力负载 Axial Force Load	
W	mm	i	50Hz	50Hz	50Hz	N	kgf	N	kgf
2200	45/40	5	300.0	58	5.920	3100	316	800	82
		7.5	200.0	90	9.180	3500	357	900	92
		10	150.0	120	12.24	3900	398	967	99
		12	125.0	150	15.31	4100	418	1040	106
		15	100.0	180	18.37	4400	449	1067	109
		20	75.00	240	24.49	4700	480	1067	109
		25	60.00	300	30.61	4700	480	1067	109
		30	50.00	360	36.73	4700	480	1067	109

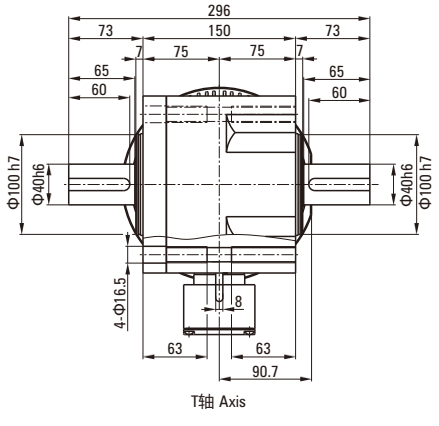
外形图
OUTLINE DRAWING

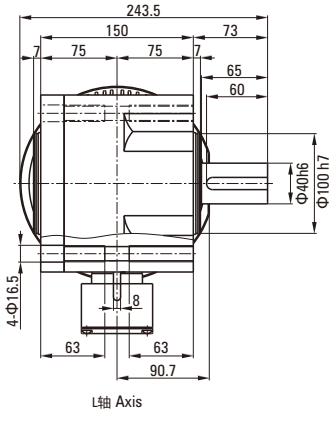
ZDF3-45H5～30-2200-S(B)　ZDF3-45H5～30-2200-S_3(B)



ZDF3-40A5～30$^{L}_{R}$$_{T}$-2200-S(B)　ZDF3-40A5～30$^{L}_{R}$$_{T}$-2200-$S_3$(B)

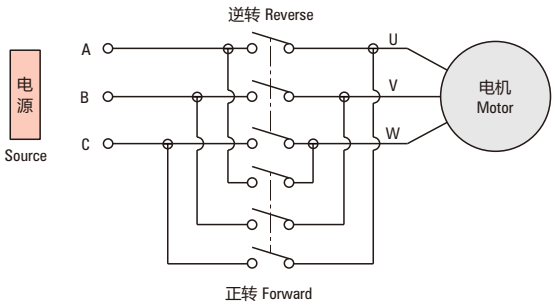






连接图
CONNECTION DIAGRAM

标准型 Standard Type



图Chart 符号 Symbol	接线盒 Junction Box 端子符号 Terminal Symbol
A	U
B	V
C	W

单相接线图 Standard Type

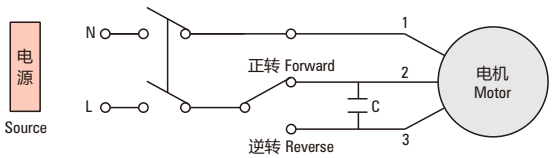


图 Chart 符号 Symbol	接线盒 Junction Box 端子符号 Terminal Symbol	对应电机引线 Corresponding Motor Lead
1	U	红 Red
2	V	蓝 Blue
3	W	白 White

带电磁制动型 Electromagnetic Brake Type

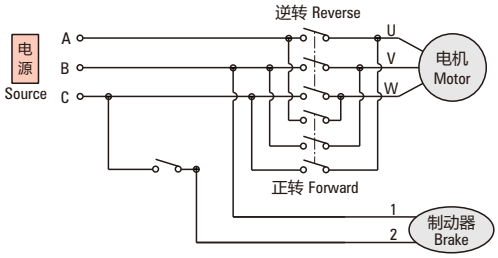
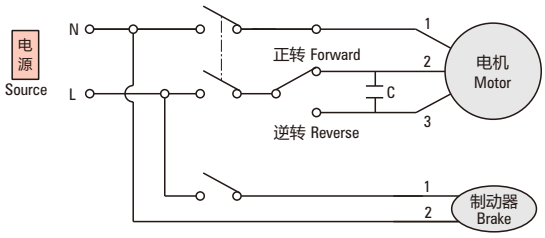
● **接线的种类与选择要点** Types and selection of wiring

接线 Connection	选择要点 Select Points	变频器 Frequency Converter	升降运转 Lifting Operation	省配线 Provincial Distribution	制动延迟 Brake Delay
交流开关 (A) AC switch (A)	由于电动机与电磁制动部可以使用不同的电路，因此最适合用于变频器驱动。 Because the electric motor and the electromagnetic braking part can use different circuits, the most suitable for the drive of the frequency converter.	◎ （最合适） (Most suitable)	○ （可以使用） (Can be used)	○	○
交流开关 (B) AC switch (B)	最简单的方法，即配线只靠电源线连接就可运转。配线的数量也相对减少。 The most simple way, that is, only by power cable wiring can run. The number of wiring is also relatively reduced.	× （不能使用） (Out of commission)	× （不能使用） (Out of commission)	◎	△

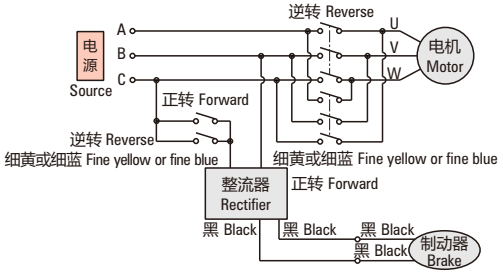
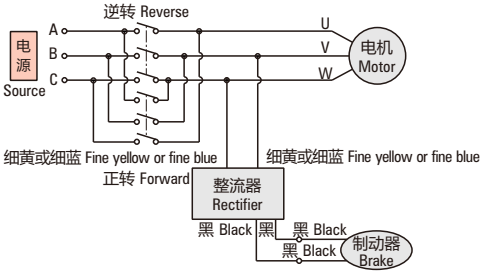
请注意：所谓制动延迟时间是指关闭开关到制动开始的时间，与制动时间不同。
Note: The so-called brake delay time is to turn off the switch to the beginning of the braking time, and the braking time is different.

连接方法 Connection Method

ZDF2系列 Series

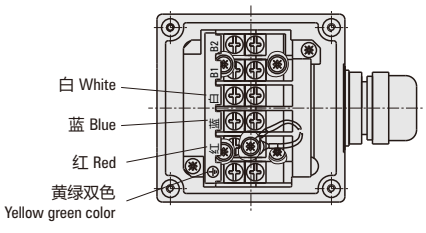
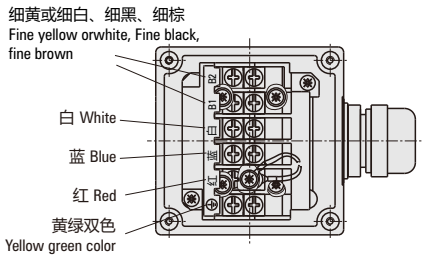
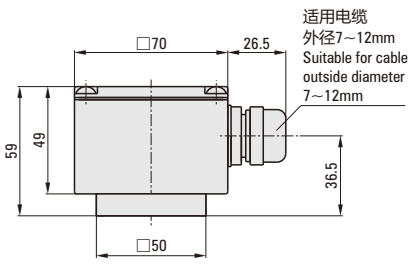
三相 220/380V Three Phase 220/380V	单相 110/220V Single Phase 110/220V
 自带整流器 Self rectifier	 自带整流器 Self rectifier

ZDF3系列 Series

交流开关 (A) AC Switch (A)	交流开关 (B) AC Switch (B)
	

端子箱 Terminal Box

单相 Single-phase

感应系列 Induction Series	刹车系列 Brake Series	接线盒外形尺寸 Junction Box Outline Dimension
		

细黄：AC 220V	F3
细白：AC 110V	F2
细棕：AC 380V	F2
细黑：AC 220V	F2

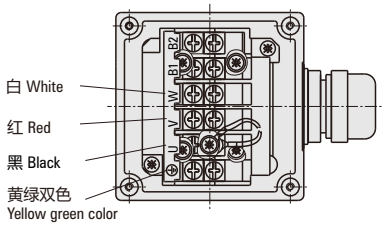
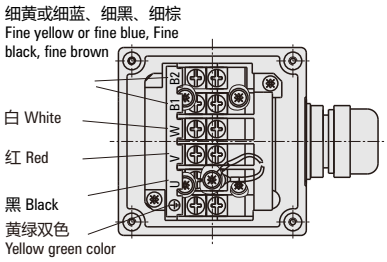
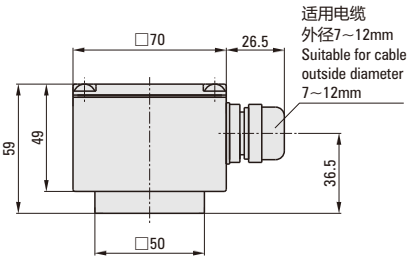
请注意：对于带电磁制动型电动机，电磁制动引线从制动部引出。

Note: For an electric motor with an electromagnetic brake, an electromagnetic braking lead is drawn from the brake part.

连接图
CONNECTION DIAGRAM

端子箱 Terminal Box

三相 Three-phase

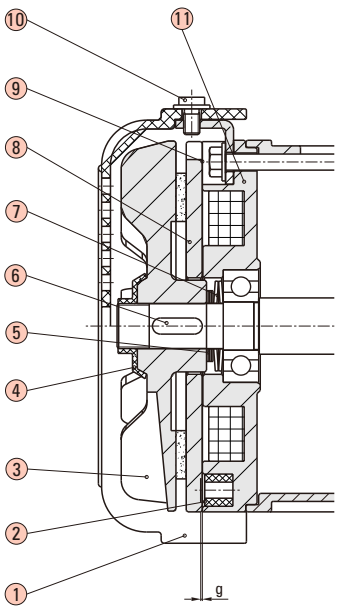
感应系列 Induction Series	刹车系列 Brake Series	接线盒外形尺寸 Junction Box Outline Dimension
		

细黄：AC 220V ┐
细蓝：AC 380V ┘ F3
细黑：AC 220V ┐
细棕：AC 380V ┘ F2

请注意：• 对于带电磁制动型电动机，电磁制动引线从制动部引出。
Note: • For an electric motor with an electromagnetic brake, an electromagnetic braking lead is drawn from the brake part.

制动部结构 Brake Part Structure

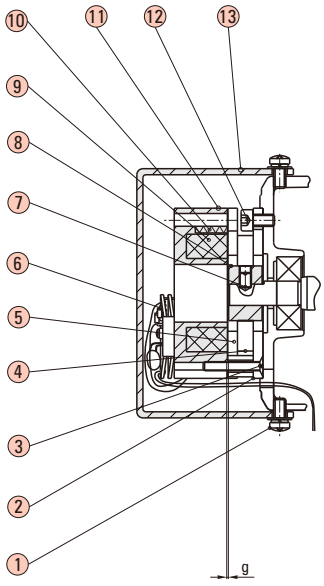
F3制动部结构 F3 brake part structure



① 风罩 Hood
② 消音垫 Silencer pad
③ 风叶组 Wind leaf formation
④ 槽形螺母 Slot nut
⑤ 调整垫片 Adjusting washer
⑥ A型键 A type key
⑦ 蝶形弹簧 Butterfly spring
⑧ 来令片 To make the film
⑨ 弹性定位销 Elastic locating pin
⑩ 风罩固定螺栓 Wind cover fixing bolt
⑪ 电磁铁 Electromagnet

g：调整间隙 (0.25～0.5mm)
Adjusting clearance (0.25～0.5mm)

F2制动部结构 F2 brake part structure



① 风罩固定螺钉
Wind cover fixing screw
② 刹车座板 Brake block
③ 沉头螺钉 Head screw
④ 摩擦片 The friction plate
⑤ 制动板 Brake plate
⑥ 整流板组件
Rectifier plate assembly
⑦ 紧定螺钉 Set screw
⑧ 连接四角 Four angle connection
⑨ 刹车线圈 Brake coil
⑩ 刹车弹簧 Brake spring
⑪ 刹车座 Brake block
⑫ 刹车固定螺钉 Brake fixing screw
⑬ 刹车罩 Brake cover

g：调整间隙 (0.25～0.5mm)
Adjusting clearance (0.25～0.5mm)

制动部的间隙 Clearance of brake

若长时间使用制动部，间隙会越开越大，导致制动部失效。请进行定期（大约一年或者间隔使用100～150万次）的间隙调整。
If the long time use of the brake, the gap will be more open, leading to the failure of the brake. Please make a regular (About one year or interval using 100～150 million) of the gap adjustment.

连接图
CONNECTION DIAGRAM

与变频器的组合 Combined With Frequency Converter

● 可以使用频率范围 Frequency range can be used

一般请在5~120Hz范围内使用。
（注：当频率低于30Hz时，电机表面温度会较高。）
・超过60Hz高速运转时的注意事项
在超过60Hz的高速运转中，振动、噪音将会增加。
另外转速加快会降低油封的使用寿命。
・低速运转时注意事项
低速运转中，由于电动机的冷却效果低下经常会引起温度的异常上升，请格外注意。
（请将电动机表面温度控制在80℃以下。）

In general, please use the 5～120Hz range.
Note: when the frequency is lower than 30Hz, the surface temperature will be higher
・More attention than the 60Hz high speed operation
Vibration and noise will be increased in the high speed operation of more than 60Hz.In addition, the speed will be accelerated to reduce the life of the oil seal.
・Low speed operation matters needing attention
Low speed operation, due to the cooling effect of the motor is often caused by the abnormal temperature rise, please pay extra attention to.
(Please control the motor surface temperature below 80℃).

● 电动机的转矩力特征（使用限度） Torque characteristics of the motor (Limit)

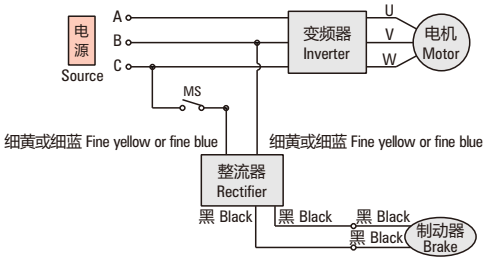
电动机的转矩力特征（使用限度）根据所使用的变频器的种类及控制方法的不同而产生巨大差异。
Torque characteristics of the motor (Use limit) caused great differences according to the types and controlling methods used by different frequency converter.

● 带电磁制动时 With electromagnetic brake

制动部配线请与变频器（变频器的输入侧供电）并联。
（输出侧电压变动可能会引起制动部的运行不稳定状况。）
连接图标记如下，请加以参照。
The wiring of the brake unit is in parallel with the input side of the converter (Inverter).
(The output side voltage fluctuation may cause the brake part to run unstable.)
Connection icon in mind as follows, please refer to.

例 Cases:

交流开关 (A)
AC Switch (A)



● 用变频器驱动380V电动机时 When the 380V motor is driven by frequency converter

电动机端子间会发生浪涌电压，可能会导致电动机绝缘性能的劣化。
为防止浪涌电压，一般采用抑制电压增强（输出电抗器）和抑制波高值（输出滤波器）两种方法。
・输出电抗器
配线较短时，可在变频器的输出侧设置AC电抗器，通过抑制电压的增强从而减弱浪涌电压。
如果配线过长则难以抑制电压的高波值。
・输出滤波器
在变频器的输出侧设置滤波器，可以抑制电动机端子电压的高波值。

Surge voltage can occur between the motor terminals, which may lead to deterioration of the insulation performance of the motor.
In order to prevent the surge voltage, by suppressing voltage enhancement (output reactor) and suppress the peak value (output filter) two methods.
・Output reactor
Wiring shorter, can be set at the output side of the inverter AC reactor, through the suppression of voltage enhancement to reduce the surge voltage.
If the wiring is too long, it is difficult to suppress the high wave value of voltage.
・Output filter
The filter can be arranged at the output side of the frequency converter, which can restrain the high wave value of the terminal voltage of the motor.

上述仅为一般情况，具体事宜请向变频器厂家咨询。 The above is only the general situation, the specific matters, please consult the inverter manufacturers.

CATALOGUE



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高精度行星减速机

中大力德



TRANSMISSION PLANETARY
传动行星减速电动机

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DC BRUSHLESS GEAR MOTOR
直流无刷减速电机

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PLANETARY GEAR BOX
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中大力德



HYPOID GEAR MOTOR
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SMALL AC GEAR MOTOR
小型交流平行轴齿轮减速电机

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