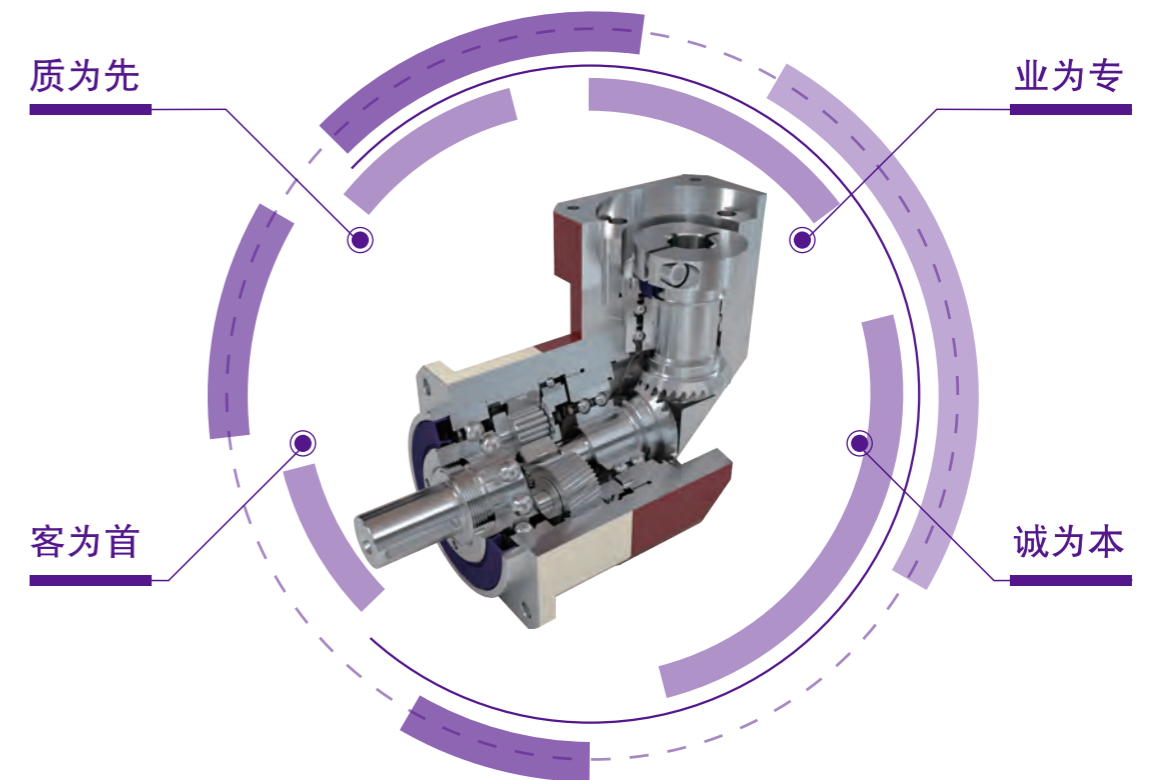


FKBR系列—低速比，高性能

FKBR SERIES—LOW SPEED RATIO, HIGH PERFORMANCE

65/66

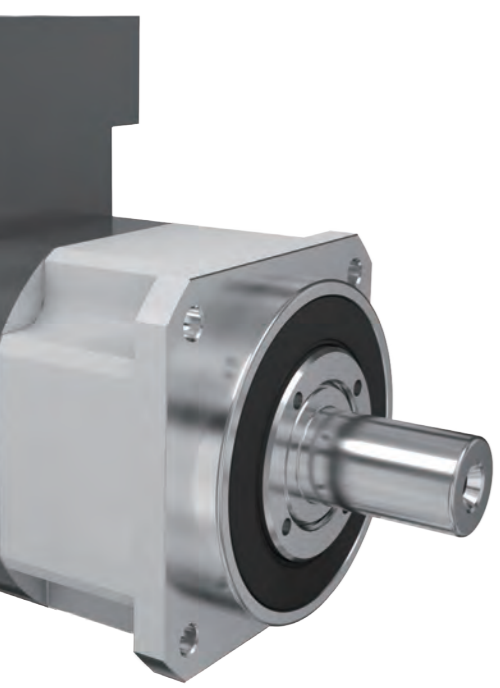


FKBR系列效率更高, 运行更佳, 更低的运行噪音;
该系列新型产品以低运行噪音, 坚实的结构
及其更为简单易行的安装方式更加值得信赖。

The FKBR series has higher efficiency, better operation and lower running noise; the new-type products of this series are more trustworthy with low running noise, solid structure and easier installation.

技术参数* TECHNICAL PARAMETERS

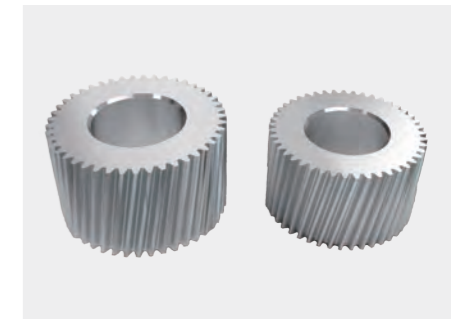
回程间隙 Return clearance	arcmin	2~9
速比 Speed ratio	i	3~100
额定输出力矩 Rated output torque	Nm	14~2000
使用温度°C Using temperature°C	°C	-10~90
噪音 The noise	dB(A)	61~72
工作效率 The work efficiency	%	95
工作寿命 The working life	h	20000



FKBR系列—低速比, 高性能
FKBR series-low speed ratio,high performance



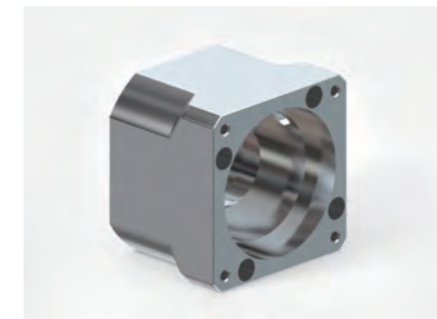
出力轴为研磨光面处理, 与油封搭配确保最低摩擦系数和启动负载
The output shaft is treated with abrasive finish and matched with oil seal to ensure minimum friction coefficient and starting load



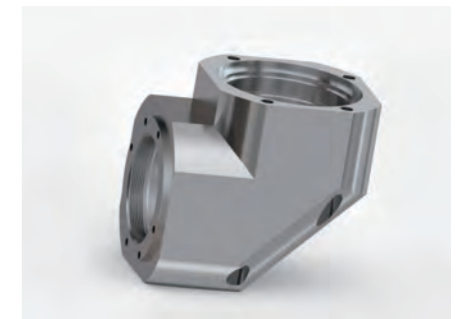
齿面宽, 参数做大, 实现高强度
The tooth surface is wide, the parameters are larger, and the high strength is achieved



用螺旋伞齿轮, 高精度咬合, 低背隙, 低噪音
With spiral bevel gear, high precision occlusion, low back clearance, low noise



锁紧环经动平衡分析, 确保连转中, 同心度和零滑差传递
The dynamic balance analysis of the locking ring ensures the concentricity and zero slip transfer in the continuous rotation



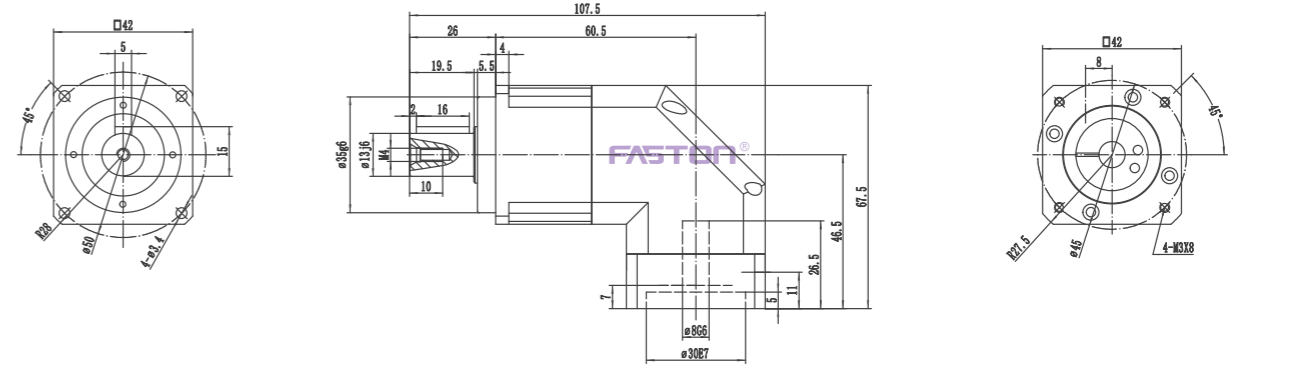
高精度一体化角块系统
High precision integrated corner block system

FKBR042				单级/One-stage								双级/Two-stage								
速比 ⁽¹⁾ Speed ratio	i			3	4	5	6	7	8	9	10	12	16	20	25	35	40	50	70	100
额定输出力矩(n_{1N}) Rated output torque	T_{2N}	Nm		20	19	22	20	19	17	14	14	20	19	19	22	19	17	22	19	14
紧急制动力矩 (在减速机使用寿命内允许1000次) Emergency braking torque (1000 times during the working life of the reducer)	T_{2NOT}	Nm	3倍额定输出力矩/3 Times rated output torque																	
额定输入转速(T_{2n} , 20°C环境温度) Rated input speed (T_{2n} , 20°C ambient temperature)	n_{1N}	rpm	5000																	
最大输入转速 Maximum input speed	n_{1max}	rpm	10000																	
空载力矩($n_1=3000$ rpm, 20°C环境温度) No-load torque ($n_1=3000$ RPM, 20°C ambient temperature)	T_{012}	Nm	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1
回程间隙PS Backlash PS	j_t	Arcmin	≤ 2								≤ 3									
回程间隙P0 Backlash P0	j_t	Arcmin	≤ 4								≤ 5									
回程间隙P1 Backlash P1	j_t	Arcmin	≤ 6								≤ 7									
回程间隙P2 Backlash P2	j_t	Arcmin	≤ 8								≤ 9									
扭转刚度 Torsional stiffness	C_{121}	Nm/Arcmin	3																	
最大轴向力 ⁽²⁾ Maximum axial force	F_{2AMax}	N	390																	
最大径向力 ⁽²⁾ Maximum radial force	F_{2RMax}	N	780																	
工作效率 Work efficiency	η	%	95								92									
使用寿命 ⁽³⁾ Service life	L_h	h	20000																	
噪音($i=10$ 和 $n_1=3000$ rpm, 空载) Noise($i=10$ and $n_1=3000$ rpm, no load)	L_{PA}	DB(A)	≤ 61																	
重量 Weight	m	Kg	0.9								1.2									
安装方向 Installation direction	任意方向/Any direction																			
使用温度 ⁽⁴⁾ Operating temperature	-10~90																			
润滑方式 Lubrication method	终生润滑/Lifetime lubrication																			
防护等级 Protection level	IP65																			
转动惯量 Moment of inertia 按减速机输入直径(mm) Input diameter based on the reducer(mm)	8	J_1	Kgcm ²	0.07	0.06	0.05	0.05	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	
	11	J_1	Kgcm ²	0.13	0.13	0.12	0.12	0.12	0.11	0.07	0.06	0.1	0.1	0.08	0.08	0.07	0.06	0.06	0.05	
	14	J_1	Kgcm ²	0.16	0.16	0.14	0.14	0.13	0.12	0.09	0.08	0.12	0.12	0.11	0.1	0.1	0.09	0.09	0.07	0.06

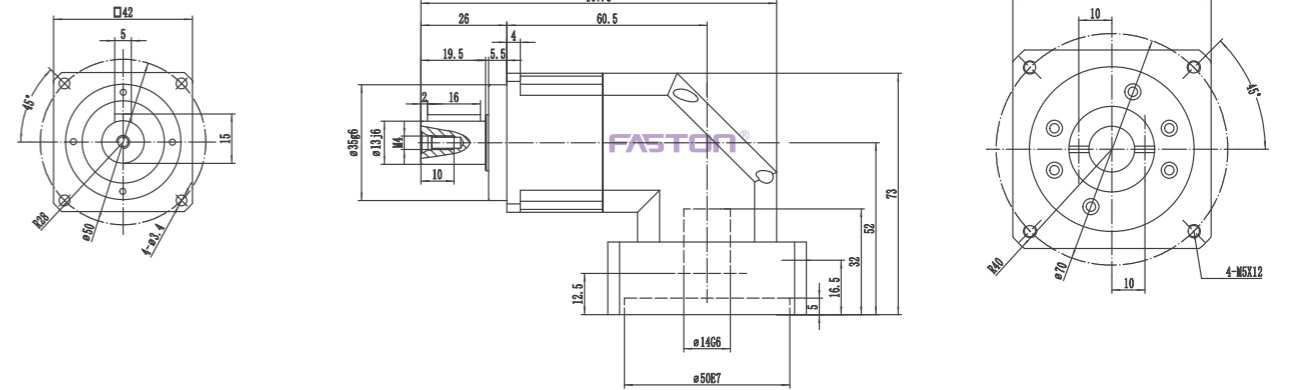
1. 可选其他减速比
2. 输出轴中心点
3. 连续运转时, 使用寿命为10000h
4. 对温度有特殊要求请与法斯頓联系

1. Optional other ratio
2. Output shaft center point
3. Service life of 10000h in continuous operation
4. For special requirements on temperature, please contact FASTON

单级/One-stage

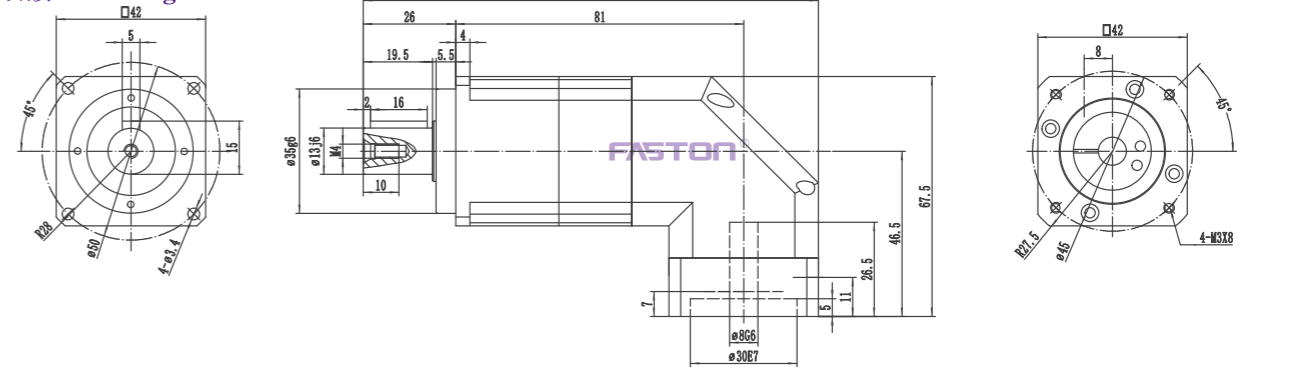


A ≤ 8

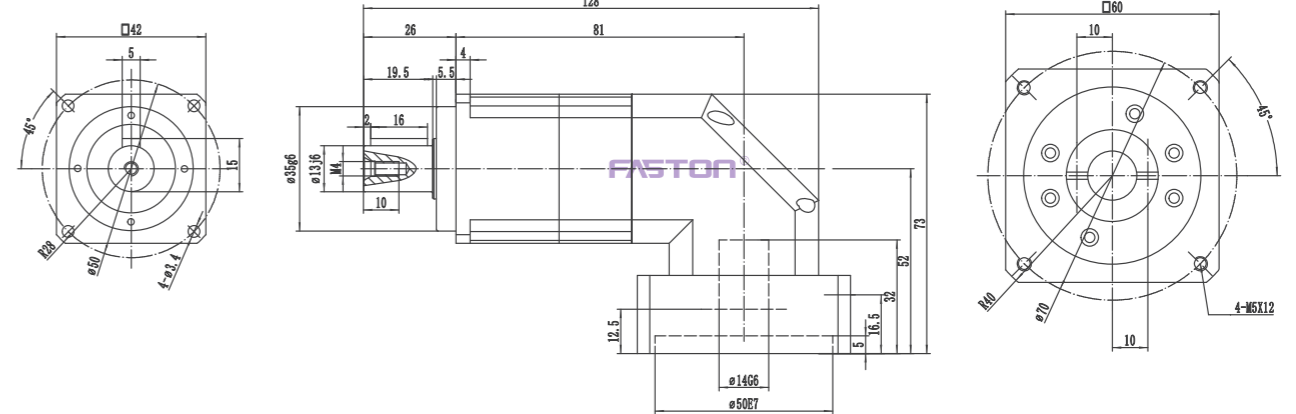


B ≤ 14

双级/Two-stage



C ≤ 8



D ≤ 14

(1) 请参照马达轴径尺寸
(2) 马达轴最长长度, 如有特殊的马达轴尺寸, 请与法斯頓联系
(3) 减速机输入端尺寸, 依马达的法兰面而定
*如无适合的尺寸, 请与法斯頓联系

(1) Please refer to the motor shaft diameter
(2) Motor shaft length, for special motor shaft size, please contact FASTON
(3) Reducer input size, depending on the flange surface of the motor
*If no suitable size available, please contact FASTON

减速机性能资料 REDUCER PERFORMANCE DATA

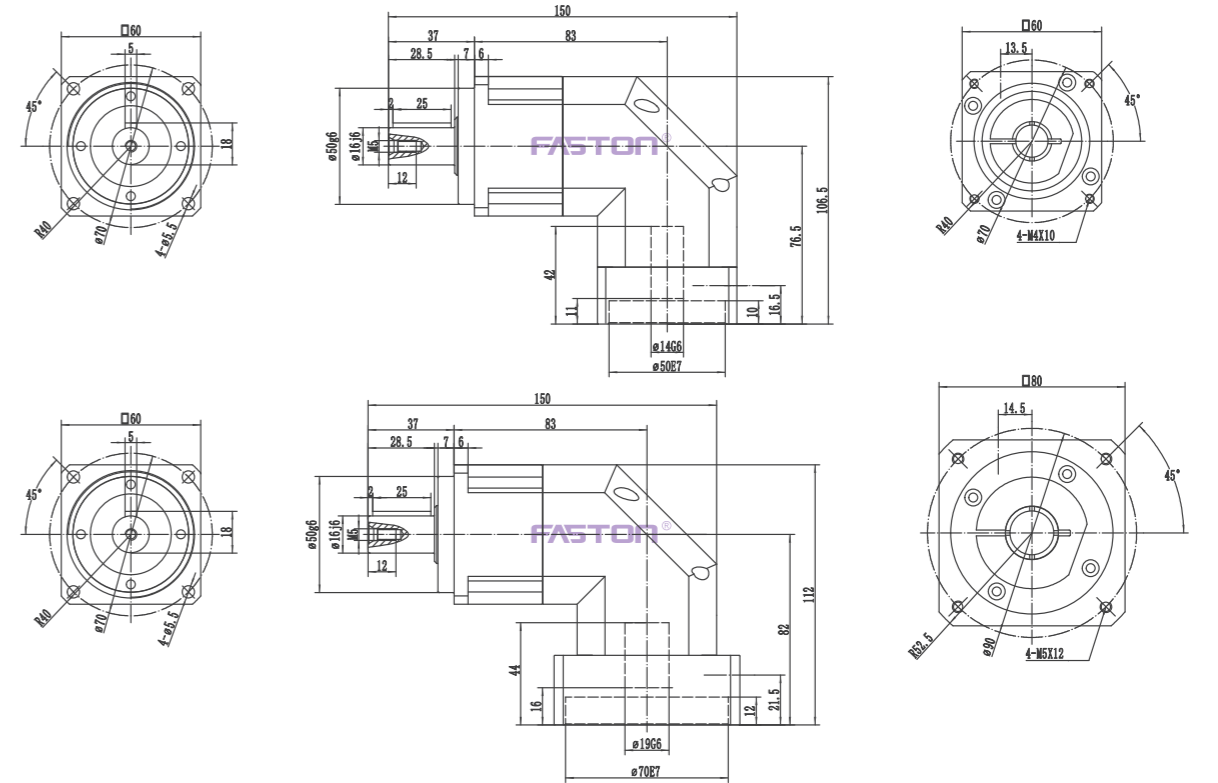
FKBR060				单级/One-stage										双级/Two-stage												
速比 ⁽¹⁾ Speed ratio	i			3	4	5	6	7	8	9	10	12	16	20	25	30	35	40	50	60	70	80	100			
额定输出力矩(n_{1N}) Rated output torque	T_{2N}	Nm		55	50	60	55	50	45	40	40	55	45	40	60	55	50	50	55	55	50	45	40			
紧急制动力矩 (在减速机工作寿命内允许1000次) Emergency braking torque (1000 times during the working life of the reducer)	T_{2NOT}	Nm	3倍额定输出力矩/3 Times rated output torque																							
额定输入转速(T_{2n} , 20°C环境温度) Rated input speed (T_{2n} , 20°C ambient temperature)	n_{1N}	rpm	4000																							
最大输入转速 Maximum input speed	n_{1max}	rpm	8000																							
空载力矩($n_l=3000$ rpm, 20°C环境温度) No-load torque ($n_l=3000$ RPM, 20°C ambient temperature)	T_{012}	Nm	0.9	0.8	0.8	0.7	0.6	0.5	0.5	0.4	0.5	0.4	0.3	0.6	0.6	0.55	0.5	0.5	0.4	0.4	0.35	0.3				
回程间隙PS Backlash PS	j_l	Arcmin	≤ 2										≤ 3													
回程间隙P0 Backlash P0	j_l	Arcmin	≤ 4										≤ 5													
回程间隙P1 Backlash P1	j_l	Arcmin	≤ 6										≤ 7													
回程间隙P2 Backlash P2	j_l	Arcmin	≤ 8										≤ 9													
扭转刚度 Torsional stiffness	C_{121}	Nm/Arcmin	4.5																							
最大轴向力 ⁽²⁾ Maximum axial force	F_{2AMax}	N	770																							
最大径向力 ⁽²⁾ Maximum radial force	F_{2RMax}	N	1550																							
工作效率 Work efficiency	η	%	95										92													
工作寿命 ⁽³⁾ Service life	L_h	h	20000																							
噪音($i=10$ 和 $n_l=3000$ rpm, 空载) Noise($i=10$ and $n_l=3000$ rpm, no load)	L_{PA}	DB(A)	≤ 63																							
重量 Weight	m	Kg	2.1										2.8													
安装方向 Installation direction	任意方向/Any direction																									
使用温度 ⁽⁴⁾ Operating temperature	-10~90																									
润滑方式 Lubrication method	终生润滑/Lifetime lubrication																									
防护等级 Protection level	IP65																									
转动惯量 Moment of inertia 按减速机输入直径(mm) Input diameter based on the reducer(mm)	11	J_1	Kgcm ²	0.25	0.2	0.2	0.15	0.13	0.12	0.1	0.1	0.09	0.09	0.08	0.1	0.1	0.09	0.08	0.08	0.08	0.08	0.08	0.08			
	14	J_1	Kgcm ²	0.28	0.25	0.25	0.22	0.18	0.17	0.15	0.14	0.14	0.13	0.12	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.15			
	19	J_1	Kgcm ²	0.65	0.6	0.55	0.55	0.52	0.5	0.5	0.48	0.48	0.45	0.42	0.18	0.18	0.16	0.15	0.15	0.15	0.15	0.14	0.14			

1. 可选其他减速比
2. 输出轴中心点
3. 连续运转时, 使用寿命为10000h
4. 对温度有特殊要求请与法斯頓联系

1. Optional other ratio
2. Output shaft center point
3. Service life of 10000h in continuous operation
4. For special requirements on temperature, please contact FASTON

减速机性能资料 REDUCER PERFORMANCE DATA

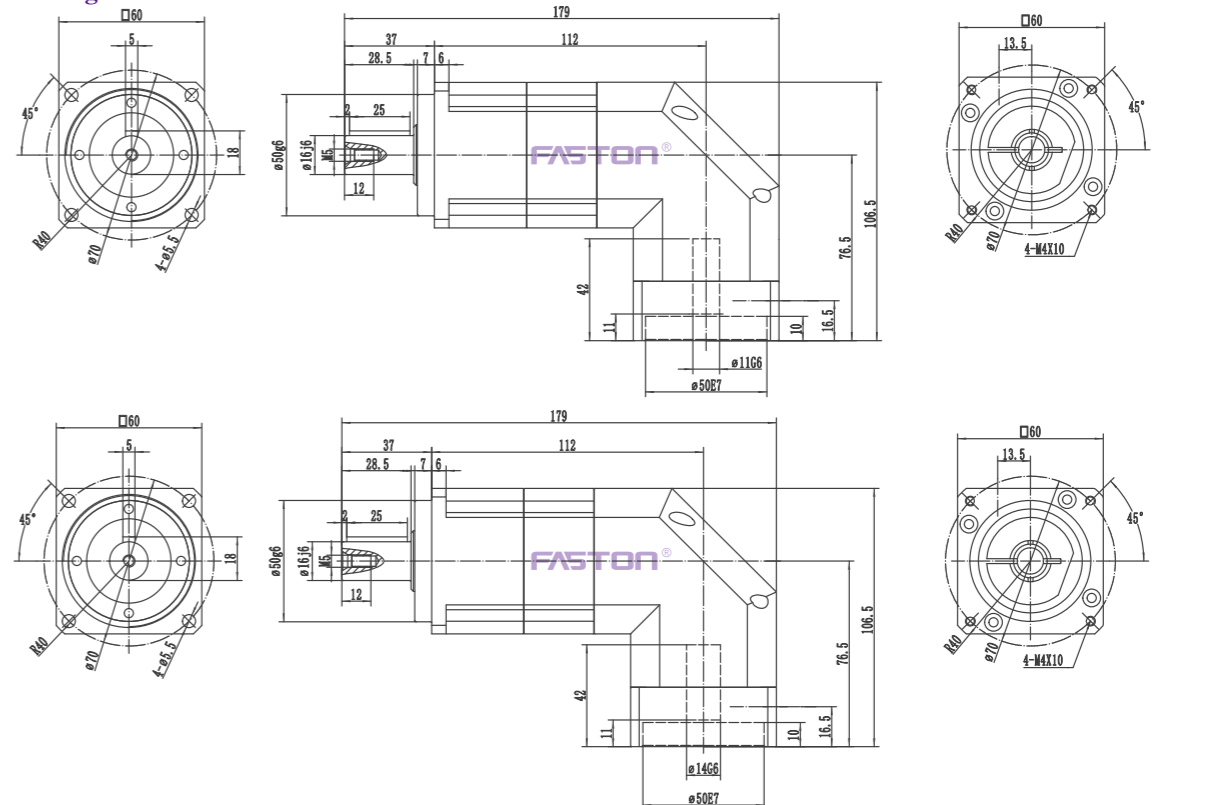
单级/One-stage



A ≤ 14 ■

B ≤ 19 ■

双级/Two-stage



C ≤ 11 ■

D ≤ 14 ■

(1) 请参照马达轴径尺寸
(2) 马达轴最长长度, 如有特殊的马达轴尺寸, 请与法斯頓联系
(3) 减速机输入端尺寸, 依马达的法兰面而定
*如无适合的尺寸, 请与法斯頓联系

(1) Please refer to the motor shaft diameter
(2) Motor shaft length, for special motor shaft size, please contact FASTON
(3) Reducer input size, depending on the flange surface of the motor
*If no suitable size available, please contact FASTON

减速机性能资料 REDUCER PERFORMANCE DATA

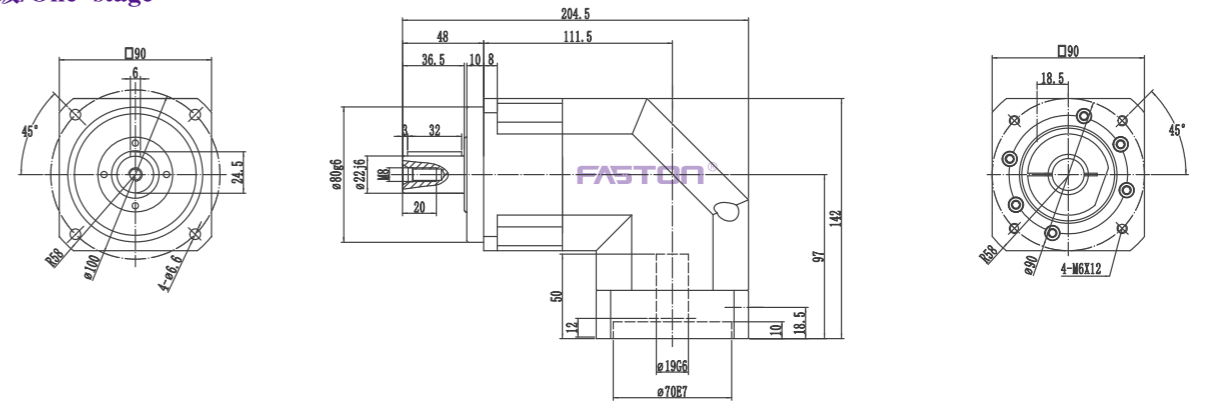
减速机性能资料 REDUCER PERFORMANCE DATA

FKBR090				单级/One-stage													双级/Two-stage																										
速比 ⁽¹⁾ Speed ratio	i			3	4	5	6	7	8	9	10	12	16	20	25	30	35	40	50	60	70	80	100	3	4	5	6	7	8	9	10	12	16	20	25	30	35	40	50	60	70	80	100
额定输出力矩(n _{1N}) Rated output torque	T _{2N}	Nm		130	140	160	140	140	120	100	100	120	120	100	160	130	140	140	160	140	140	120	100	160	130	140	140	160	140	140	120	100	160	130	140	140	160	140	140	120	100		
紧急制动力矩 (在减速机工作寿命内允许1000次) Emergency braking torque (1000 times during the working life of the reducer)	T _{2NOT}	Nm	3倍额定输出力矩/3 Times rated output torque																																								
额定输入转速(T _{2n} , 20°C环境温度) Rated input speed (T _{2n} , 20°C ambient temperature)	n _{1N}	rpm	3000																																								
最大输入转速 Maximum input speed	n _{1max}	rpm	6000																																								
空载力矩(nl=3000rpm, 20°C环境温度) No-load torque (nl=3000 RPM, 20°C ambient temperature)	T ₀₁₂	Nm	2	1.9	1.8	1.8	1.7	1.5	1.3	1.1	1.2	1.1	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.4	0.3	0.3	2	1.9	1.8	1.8	1.7	1.5	1.3	1.1	1.2	1.1	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.4	0.3	0.3	
回程间隙PS Backlash PS	j _t	Arcmin	≤2																		≤3																						
回程间隙P0 Backlash P0	j _t	Arcmin	≤4																		≤5																						
回程间隙P1 Backlash P1	j _t	Arcmin	≤6																		≤7																						
回程间隙P2 Backlash P2	j _t	Arcmin	≤8																		≤9																						
扭转刚度 Torsional stiffness	C _{t21}	Nm/Arcmin	14																																								
最大轴向力 ⁽²⁾ Maximum axial force	F _{2AMax}	N	1630																																								
最大径向力 ⁽²⁾ Maximum radial force	F _{2RMax}	N	3250																																								
工作效率 Work efficiency	η	%	95																		92																						
工作寿命 ⁽³⁾ Service life	L _h	h	20000																																								
噪音(i=10和n1=3000rpm, 空载) Noise(i=10 and n1=3000rpm, no load)	L _{PA}	DB(A)	≤65																																								
重量 Weight	m	Kg	6.5																		7.8																						
安装方向 Installation direction	任意方向/Any direction																																										
使用温度 ⁽⁴⁾ Operating temperature	-10~90																																										
润滑方式 Lubrication method	终生润滑/Lifetime lubrication																																										
防护等级 Protection level	IP65																																										
转动惯量 Moment of inertia 按减速机输入直径(mm) Input diameter based on the reducer(mm)	14	J ₁	Kgcm ²	0.25	0.2	0.2	0.15	0.13	0.12	0.1	0.1	0.09	0.09	0.08	0.25	0.23	0.21	0.2	0.18	0.18	0.18	0.16	0.16	0.25	0.23	0.21	0.2	0.18	0.18	0.18	0.16	0.16											
	19	J ₁	Kgcm ²	0.28	0.25	0.25	0.22	0.18	0.17	0.15	0.14	0.14	0.13	0.12	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.5									
	22	J ₁	Kgcm ²	0.65	0.6	0.55	0.55	0.52	0.5	0.5	0.48	0.48	0.45	0.42	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.65	0.6	0.6	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.65	0.6	0.6									

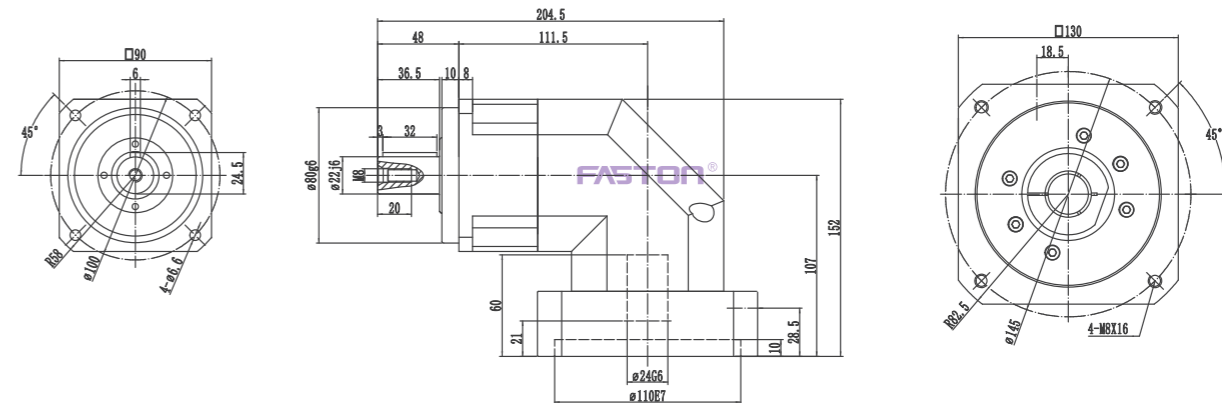
1. 可选其他减速比
2. 输出轴中心点
3. 连续运转时, 使用寿命为10000h
4. 对温度有特殊要求请与法斯頓联系

1. Optional other ratio
2. Output shaft center point
3. Service life of 10000h in continuous operation
4. For special requirements on temperature, please contact FASTON

单级/One-stage

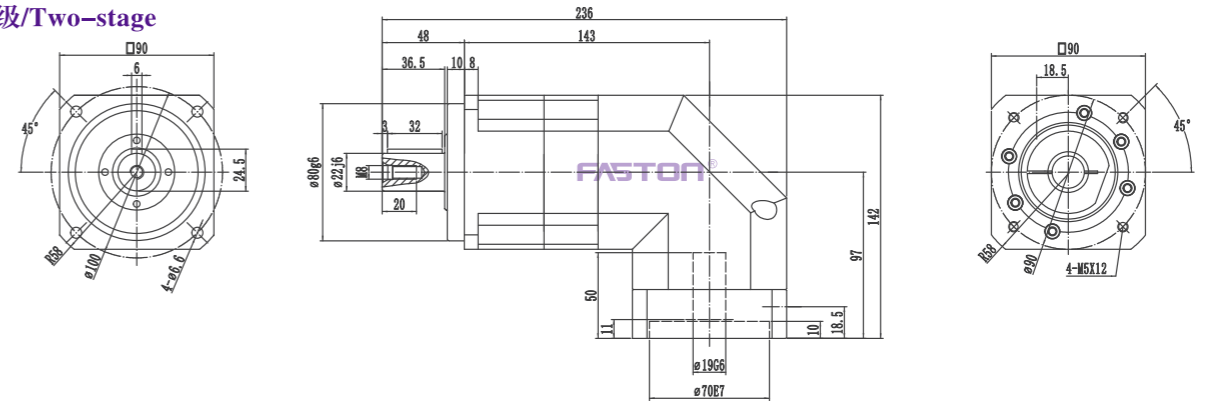


A ≤ 19

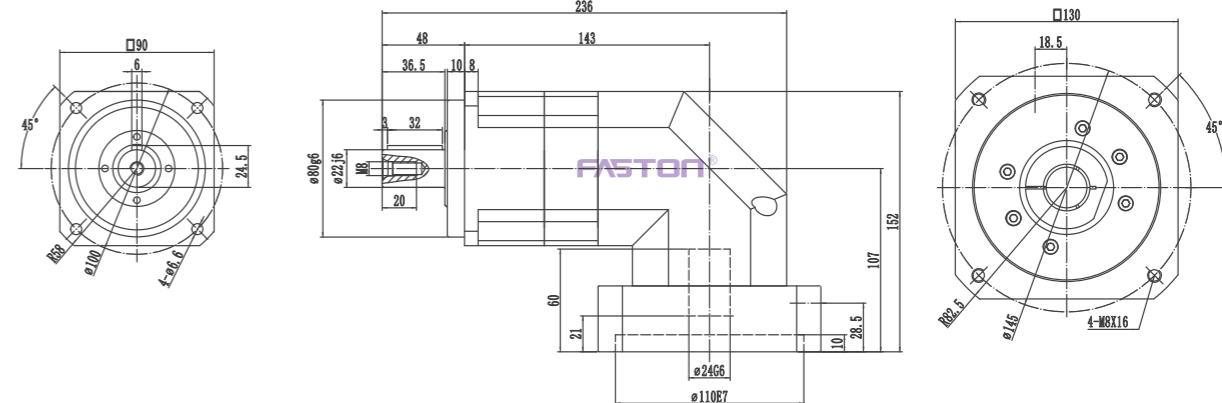


B ≤ 24

双级/Two-stage



C ≤ 19



D ≤ 24

(1) 请参照马达轴径尺寸
(2) 马达轴最长长度, 如有特殊的马达轴尺寸, 请与法斯頓联系
(3) 减速机输入端尺寸, 依马达的法兰面而定
*如无适合的尺寸, 请与法斯頓联系

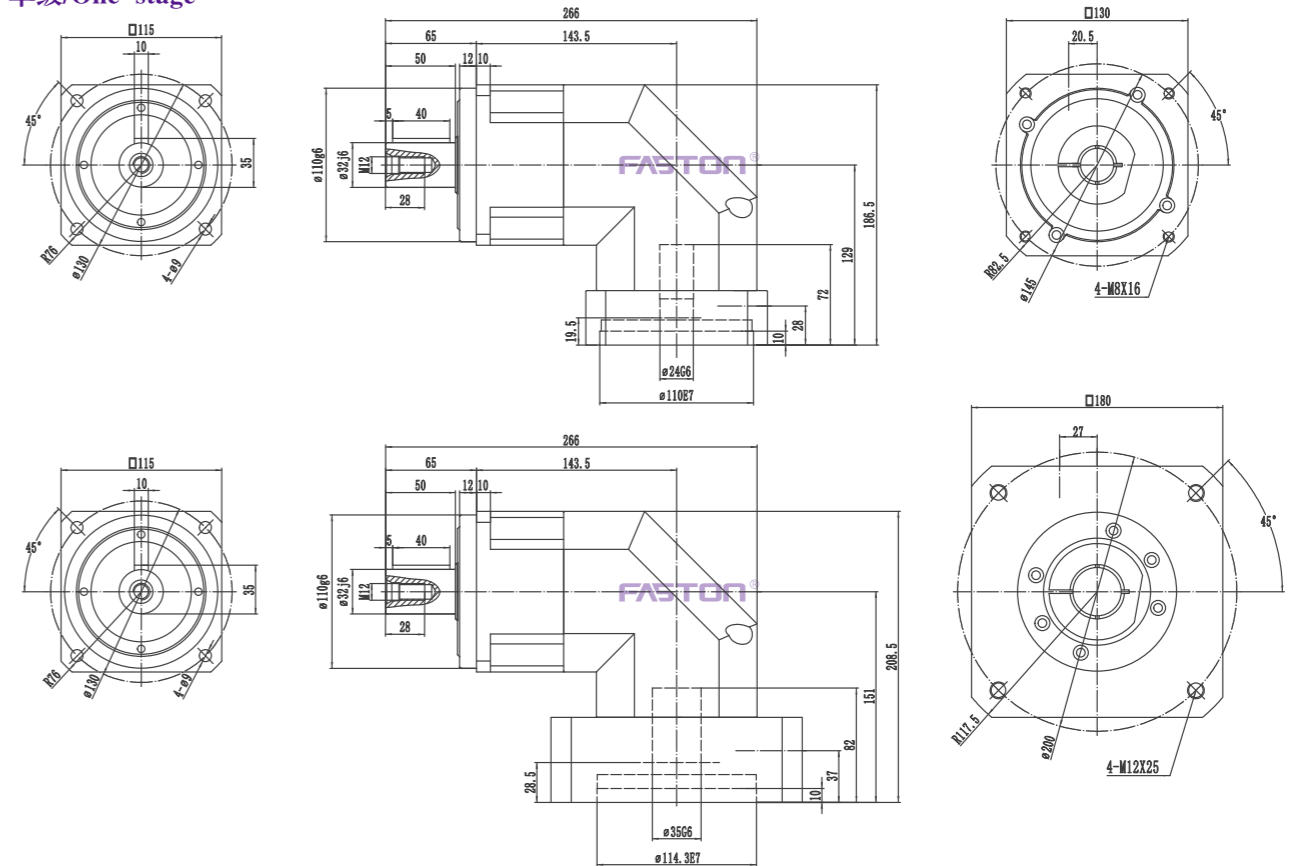
(1) Please refer to the motor shaft diameter
(2) Motor shaft length, for special motor shaft size, please contact FASTON
(3) Reducer input size, depending on the flange surface of the motor
*If no suitable size available, please contact FASTON

FKBR115			单级/One-stage										双级/Two-stage									
速比 ⁽¹⁾ Speed ratio	i		3	4	5	6	7	8	9	10	12	16	20	25	30	35	40	50	60	70	80	100
额定输出力矩(n_{1N}) Rated output torque	T_{2N}	Nm	208	290	330	300	300	260	230	230	208	260	230	330	208	300	290	330	300	300	260	230
紧急制动力矩 Emergency braking torque (在减速机使用寿命内允许1000次) (1000 times during the working life of the reducer)	T_{2NOT}	Nm	3倍额定输出力矩/3 Times rated output torque																			
额定输入转速(T_{2n} , 20°C环境温度) Rated input speed (T_{2n} , 20°C ambient temperature)	n_{1N}	rpm	3000																			
最大输入转速 Maximum input speed	n_{1max}	rpm	6000																			
空载力矩($n_1=3000$ rpm, 20°C环境温度) No-load torque ($n_1=3000$ RPM, 20°C ambient temperature)	T_{012}	Nm	3.6	3	2.7	2.5	2	1.8	1.6	1.5	1.6	1.5	1.3	1.8	1.6	1.6	1.5	1.2	1	0.8	0.7	0.6
回程间隙PS Backlash PS	j_t	Arcmin	≤2										≤3									
回程间隙P0 Backlash P0	j_t	Arcmin	≤4										≤5									
回程间隙P1 Backlash P1	j_t	Arcmin	≤6										≤7									
回程间隙P2 Backlash P2	j_t	Arcmin	≤8										≤9									
扭转刚度 Torsional stiffness	C_{i21}	Nm/Arcmin	25																			
最大轴向力 ⁽²⁾ Maximum axial force	F_{2AMax}	N	3350																			
最大径向力 ⁽²⁾ Maximum radial force	F_{2RMax}	N	6700																			
工作效率 Work efficiency	η	%	95										92									
使用寿命 ⁽³⁾ Service life	L_h	h	20000																			
噪音($i=10$ 和 $n_1=3000$ rpm, 空载) Noise($i=10$ and $n_1=3000$ rpm, no load)	L_{PA}	DB(A)	≤67																			
重量 Weight	m	Kg	13										14									
安装方向 Installation direction			任意方向/Any direction																			
使用温度 ⁽⁴⁾ Operating temperature		°C	-10~90																			
润滑方式 Lubrication method			终生润滑/Lifetime lubrication																			
防护等级 Protection level			IP65																			
转动惯量 Moment of inertia 按减速机输入直径(mm) Input diameter based on the reducer(mm)	14	J_1	Kgcm ²	3.5	3	2.6	2.2	2	1.8	1.6	1.5	1.5	1.4	1.3	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.5
	19	J_1	Kgcm ²	4.8	4.6	4.5	4	3.5	3	2.7	2.5	2.5	2.3	2.1	2	1.8	1.8	1.7	1.7	1.6	1.4	1.4
	22	J_1	Kgcm ²	11.5	10.5	10	10	9.9	9.9	9.6	9.5	9	9	8.5	2.2	2.1	2.1	2	2	1.9	1.8	1.8

1. 可选其他减速比
2. 输出轴中心点
3. 连续运转时, 使用寿命为10000h
4. 对温度有特殊要求请与法斯頓联系

1. Optional other ratio
2. Output shaft center point
3. Service life of 10000h in continuous operation
4. For special requirements on temperature, please contact FASTON

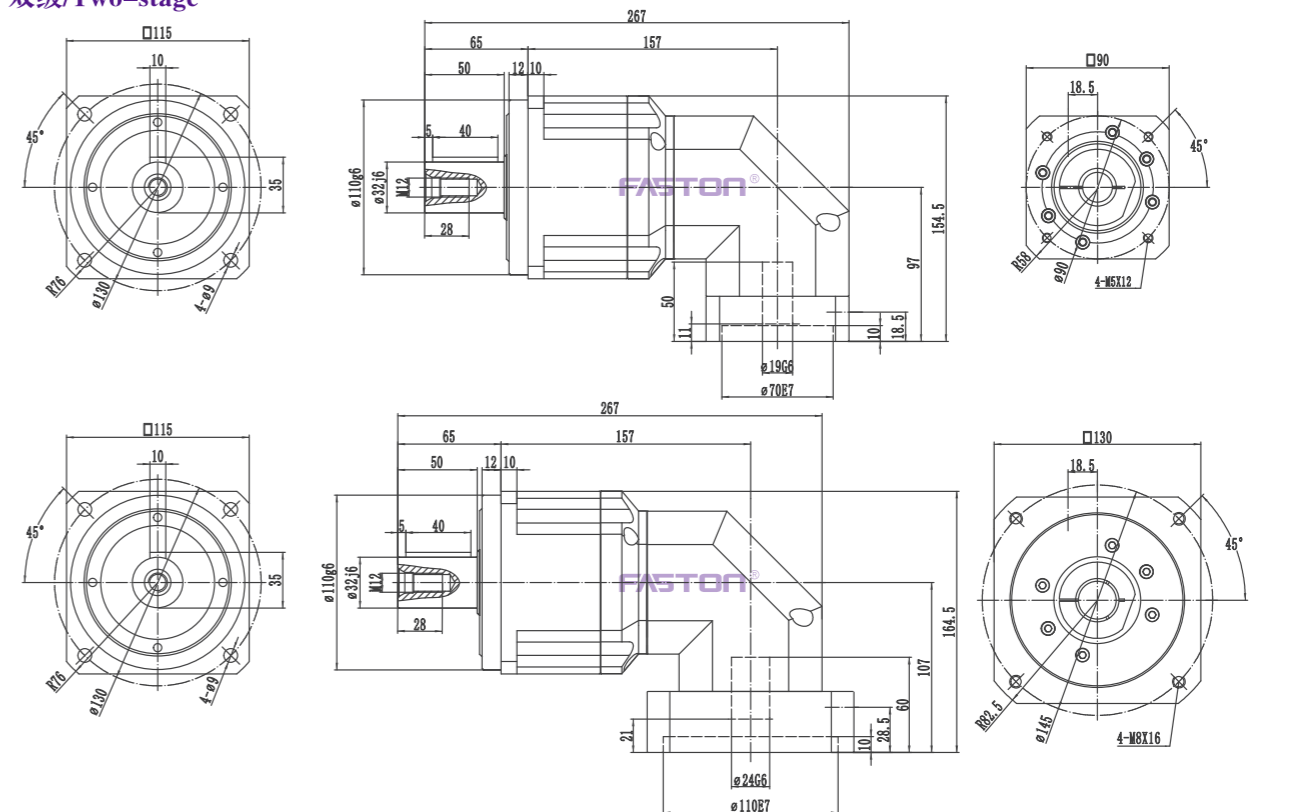
单级/One-stage



A ≤ 24

B ≤ 35

双级/Two-stage



C ≤ 19

D ≤ 24

(1) 请参照马达轴径尺寸
(2) 马达轴最长长度, 如有特殊的马达轴尺寸, 请与法斯頓联系
(3) 减速机输入端尺寸, 依马达的法兰面而定
*如无适合的尺寸, 请与法斯頓联系

(1) Please refer to the motor shaft diameter
(2) Motor shaft length, for special motor shaft size, please contact FASTON
(3) Reducer input size, depending on the flange surface of the motor
*If no suitable size available, please contact FASTON

减速机性能资料 REDUCER PERFORMANCE DATA

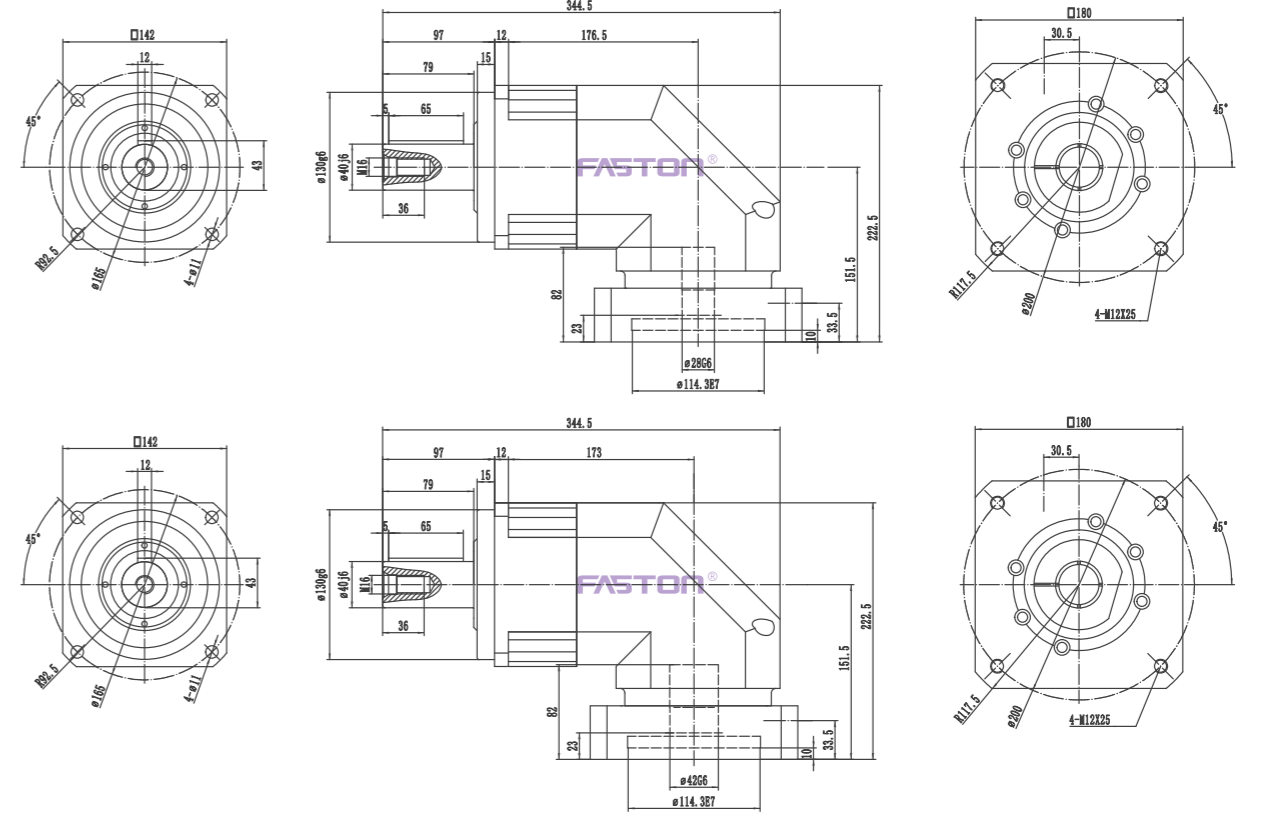
FKBR142				单级/One-stage												双级/Two-stage											
速比 ⁽¹⁾ Speed ratio	i			3	4	5	6	7	8	9	10	12	16	20	25	30	35	40	50	60	70	80	100				
额定输出力矩(n_{1N}) Rated output torque	T_{2N}	Nm		342	542	650	550	550	500	450	450	550	550	450	650	342	550	542	650	550	550	500	450				
紧急制动转矩 (在减速机使用寿命内允许1000次) (1000 times during the working life of the reducer)	T_{2NOT}	Nm	3倍额定输出力矩/3 Times rated output torque																								
额定输入转速(T_{2n} , 20°C环境温度) Rated input speed (T_{2n} , 20 °C ambient temperature)	n_{1N}	rpm	3000																								
最大输入转速 Maximum input speed	n_{1max}	rpm	6000																								
空载力矩($n_1=3000rpm$, 20°C环境温度) No-load torque ($n_1=3000 RPM$, 20°C ambient temperature)	T_{012}	Nm	8	6	4.7	4.5	3.5	2.5	2.5	2.5	2.6	2.5	2.3	3.5	2.8	2.6	2.2	2.0	1.9	1.8	1.6	1.5					
回程间隙PS Backlash PS	j_t	Arcmin	≤ 2												≤ 3												
回程间隙P0 Backlash P0	j_t	Arcmin	≤ 4												≤ 5												
回程间隙P1 Backlash P1	j_t	Arcmin	≤ 6												≤ 7												
回程间隙P2 Backlash P2	j_t	Arcmin	≤ 8												≤ 9												
扭转刚度 Torsional stiffness	C_{121}	Nm/Arcmin	50																								
最大轴向力 ⁽²⁾ Maximum axial force	F_{2AMax}	N	4700																								
最大径向力 ⁽²⁾ Maximum radial force	F_{2RMax}	N	9400																								
工作效率 Work efficiency	η	%	95												92												
使用寿命 ⁽³⁾ Service life	L_h	h	20000																								
噪音($i=10$ 和 $n_1=3000rpm$, 空载) Noise($i=10$ and $n_1=3000rpm$, no load)	L_{PA}	DB(A)	≤ 68																								
重量 Weight	m	Kg	24												27												
安装方向 Installation direction	任意方向/Any direction																										
使用温度 ⁽⁴⁾ Operating temperature	-10~90																										
润滑方式 Lubrication method	终生润滑/Lifetime lubrication																										
防护等级 Protection level	IP65																										
转动惯量 Moment of inertia 按减速机输入直径(mm) Input diameter based on the reducer(mm)	24	J_1	Kgcm ²	10.5	8	8	7.2	7	6.5	5.8	5.5	5	5	4.8	2.6	2.2	2	1.7	1.7	1.6	1.4	1.4	1.4				
	35	J_1	Kgcm ²	14.5	12	11	10	10	9.5	9.5	9	9	8.5	8.5	3.3	3.2	3	2.9	2.7	2.5	2.3	2.2	2				
	42	J_1	Kgcm ²	26	25	24.5	24.1	24.1	23	22.5	22	21	21	19.8	14.5	12	11	10	10	9.5	9.5	9	9				

1. 可选其他减速比
2. 输出轴中心点
3. 连续运转时, 使用寿命为10000h
4. 对温度有特殊要求请与法斯頓联系

1. Optional other ratio
2. Output shaft center point
3. Service life of 10000h in continuous operation
4. For special requirements on temperature, please contact FASTON

减速机性能资料 REDUCER PERFORMANCE DATA

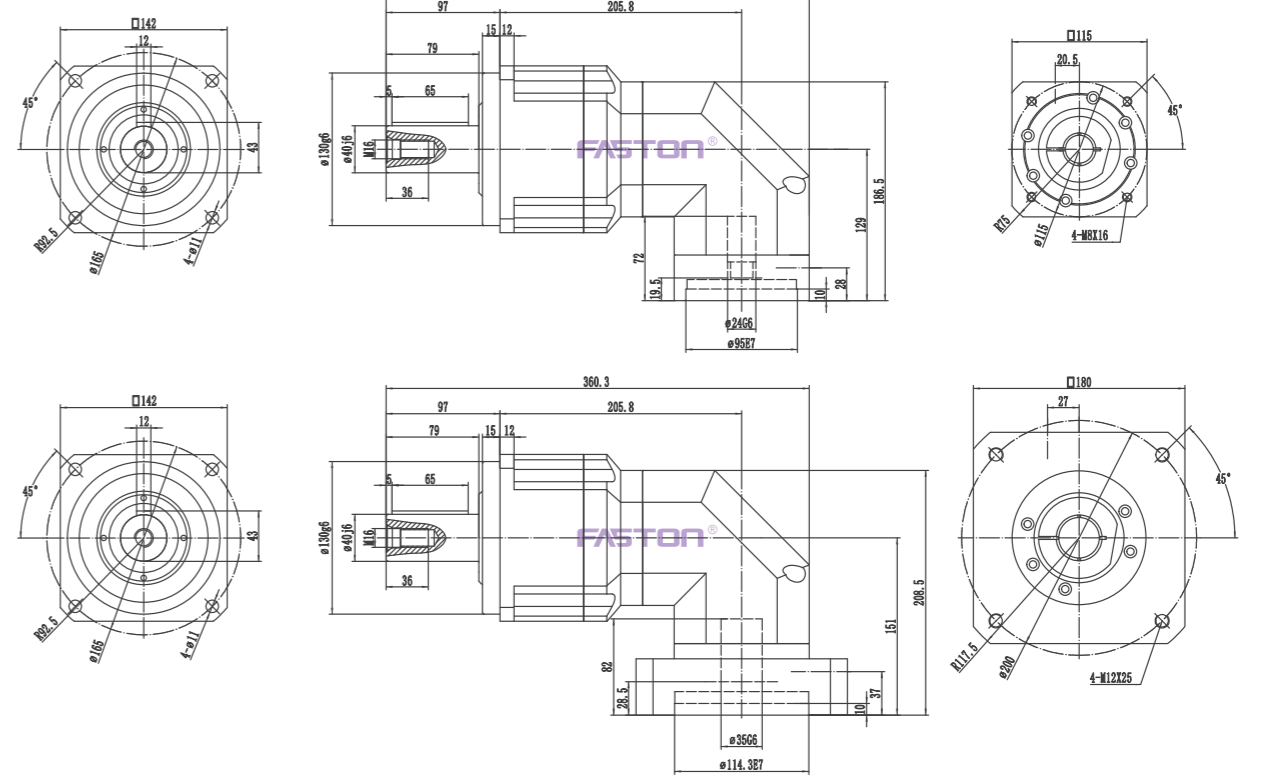
单级/One-stage



A ≤ 28

B ≤ 42

双级/Two-stage



C ≤ 24

D ≤ 35

(1) 请参照马达轴径尺寸
(2) 马达轴最长长度, 如有特殊的马达轴尺寸, 请与法斯頓联系
(3) 减速机输入端尺寸, 依马达的法兰面而定
*如无适合的尺寸, 请与法斯頓联系

(1) Please refer to the motor shaft diameter
(2) Motor shaft length, for special motor shaft size, please contact FASTON
(3) Reducer input size, depending on the flange surface of the motor
*If no suitable size available, please contact FASTON

减速机性能资料 REDUCER PERFORMANCE DATA

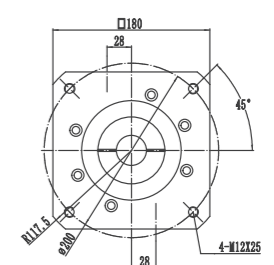
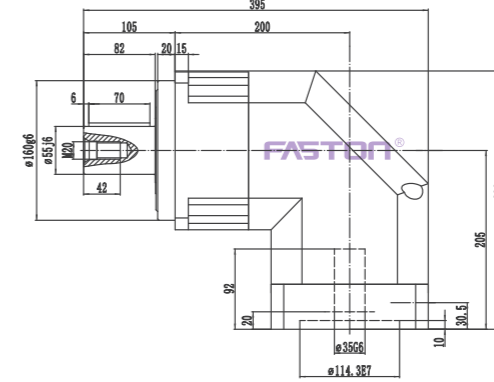
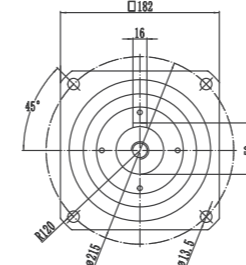
FKBR180				单级/One-stage																双级/Two-stage																							
速比 ⁽¹⁾ Speed ratio	i			3	4	5	6	7	8	9	10	12	16	20	25	30	35	40	55	60	70	80	100	3	4	5	6	7	8	9	10	12	16	20	25	30	35	40	55	60	70	80	100
额定输出力矩(n_{1N}) Rated output torque	T_{2N}	Nm		750	1050	1200	1100	1100	1100	900	900	1000	1000	900	750	1050	1050	1200	1100	1020	1200	1100	900	750	1050	1050	1200	1100	1020	1200	1100	900	750	1050	1050	1200	1100	1020	1200	1100	900		
紧急制动力矩 (在减速机使用寿命内允许1000次) Emergency braking torque (1000 times during the working life of the reducer)	T_{2NOT}	Nm	3倍额定输出力矩/3 Times rated output torque																																								
额定输入转速 ($T_{2n,20^\circ\text{C}}$ 环境温度) Rated input speed ($T_{2n,20^\circ\text{C}}$ ambient temperature)	n_{1N}	rpm	3000																																								
最大输入转速 Maximum input speed	n_{1max}	rpm	6000																																								
空载力矩($n_1=3000\text{rpm}$, 20°C 环境温度) No-load torque ($n_1=3000\text{RPM}$, 20°C ambient temperature)	T_{012}	Nm	15	13	12	11	9	7.5	6.5	5.5	2.6	2.5	2.3	14	11	11	9	9	8	7	6.8	5	15	13	12	11	9	7.5	6.5	5.5	2.6	2.5	2.3	14	11	11	9	9	8	7	6.8	5	
回程间隙PS Backlash PS	j_t	Arcmin	≤ 2																≤ 3																								
回程间隙P0 Backlash P0	j_t	Arcmin	≤ 4																≤ 5																								
回程间隙P1 Backlash P1	j_t	Arcmin	≤ 6																≤ 7																								
回程间隙P2 Backlash P2	j_t	Arcmin	≤ 8																≤ 9																								
扭转刚度 Torsional stiffness	C_{121}	Nm/Arcmin	145																																								
最大轴向力 ⁽²⁾ Maximum axial force	F_{2AMax}	N	7250																																								
最大径向力 ⁽²⁾ Maximum radial force	F_{2RMax}	N	14500																																								
工作效率 Work efficiency	η	%	95																92																								
使用寿命 ⁽³⁾ Service life	L_h	h	20000																																								
噪音($i=10$ 和 $n_1=3000\text{rpm}$, 空载) Noise($i=10$ and $n_1=3000\text{rpm}$, no load)	L_{PA}	DB(A)	≤ 70																																								
重量 Weight	m	Kg	51																55																								
安装方向 Installation direction	任意方向/Any direction																																										
使用温度 ⁽⁴⁾ Operating temperature	$^\circ\text{C}$ -10~90																																										
润滑方式 Lubrication method	终生润滑/Lifetime lubrication																																										
防护等级 Protection level	IP65																																										
转动惯量 Moment of inertia 按减速机输入直径(mm) Input diameter based on the reducer(mm)	35	J_1	Kgcm ²	49	35	30	25	23	22	20	19	15	15	14.8	9.5	9	8.8	8.2	7.9	7.5	6.8	6.2	5.5	49	35	30	25	23	22	20	19	15	15	14.8	9.5	9	8.8	8.2	7.9	7.5	6.8	6.2	5.5
	42	J_1	Kgcm ²	52	41	37	36	35	32	30	28	19	18.5	18.5	12	11.4	10.9	10.2	9.8	9.7	9.3	9.0	8.5	52	41	37	36	35	32	30	28	19	18.5	18.5	12	11.4	10.9	10.2	9.8	9.7	9.3	9.0	8.5
	55	J_1	Kgcm ²	66	50	44	42	40	38	36	36	31	31	29.8	13	12.1	11	10.5	10.2	10	9.9	9.8	9.5	66	50	44	42	40	38	36	36	31	31	29.8	13	12.1	11	10.5	10.2	10	9.9	9.8	9.5

1. 可选其他减速比
2. 输出轴中心点
3. 连续运转时, 使用寿命为10000h
4. 对温度有特殊要求请与法斯頓联系

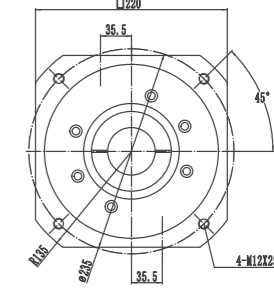
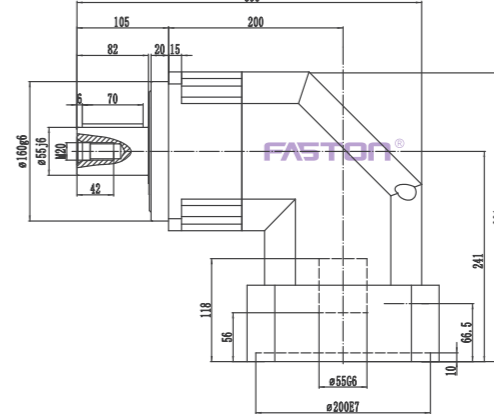
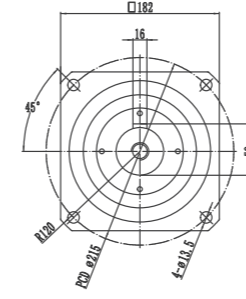
1. Optional other ratio
2. Output shaft center point
3. Service life of 10000h in continuous operation
4. For special requirements on temperature, please contact FASTON

减速机性能资料 REDUCER PERFORMANCE DATA

单级/One-stage

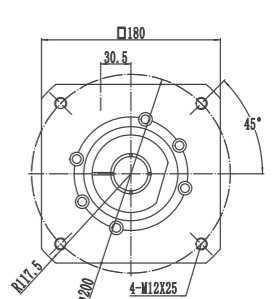
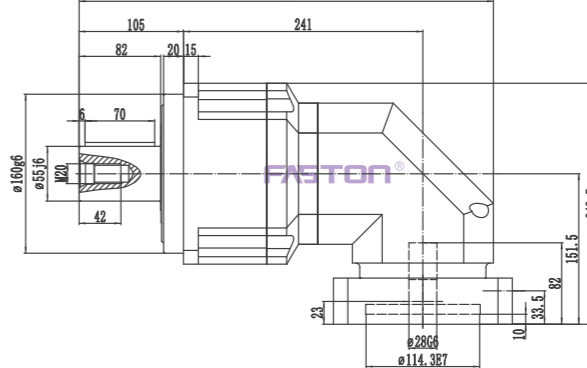
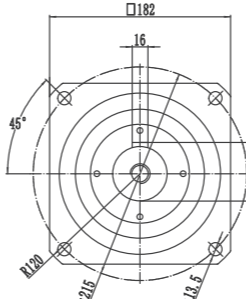


A ≤ 35

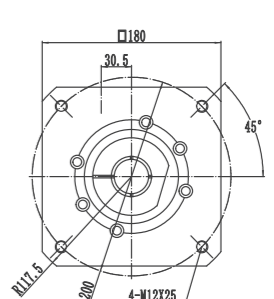
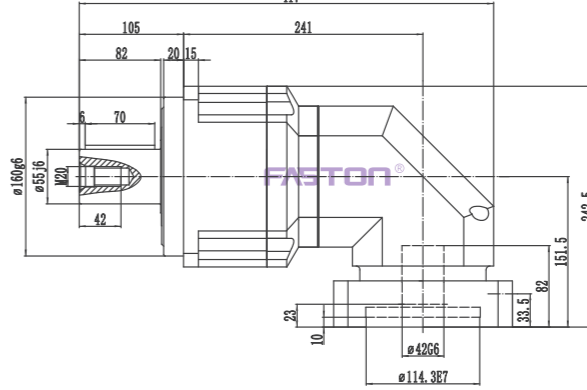
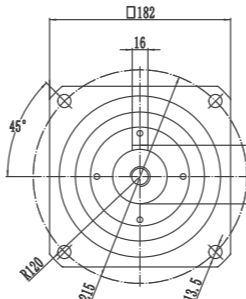


B ≤ 55

双级/Two-stage



C ≤ 28



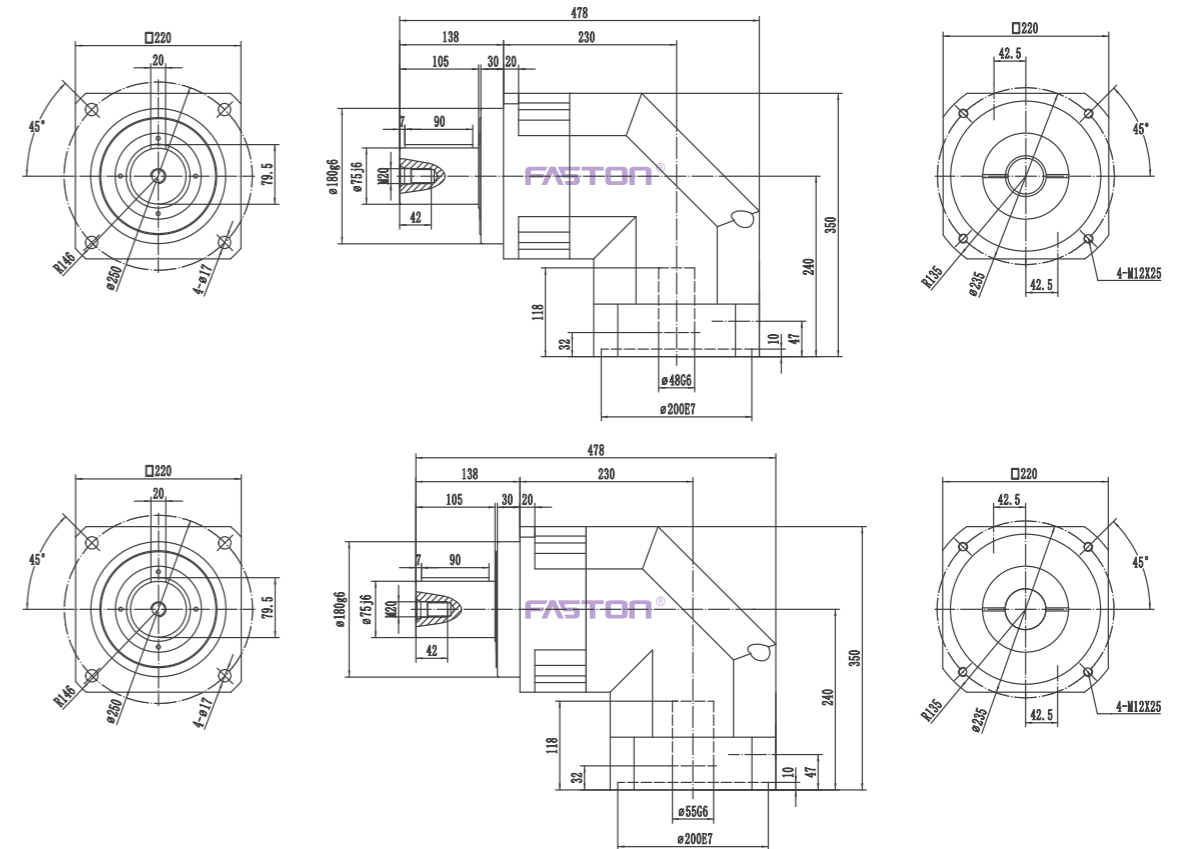
D ≤ 42

(1) 请参照马达轴径尺寸
(2) 马达轴最长长度, 如有特殊的马达轴尺寸, 请与法斯頓联系
(3) 减速机输入端尺寸, 依马达的法兰面而定
*如无适合的尺寸, 请与法斯頓联系

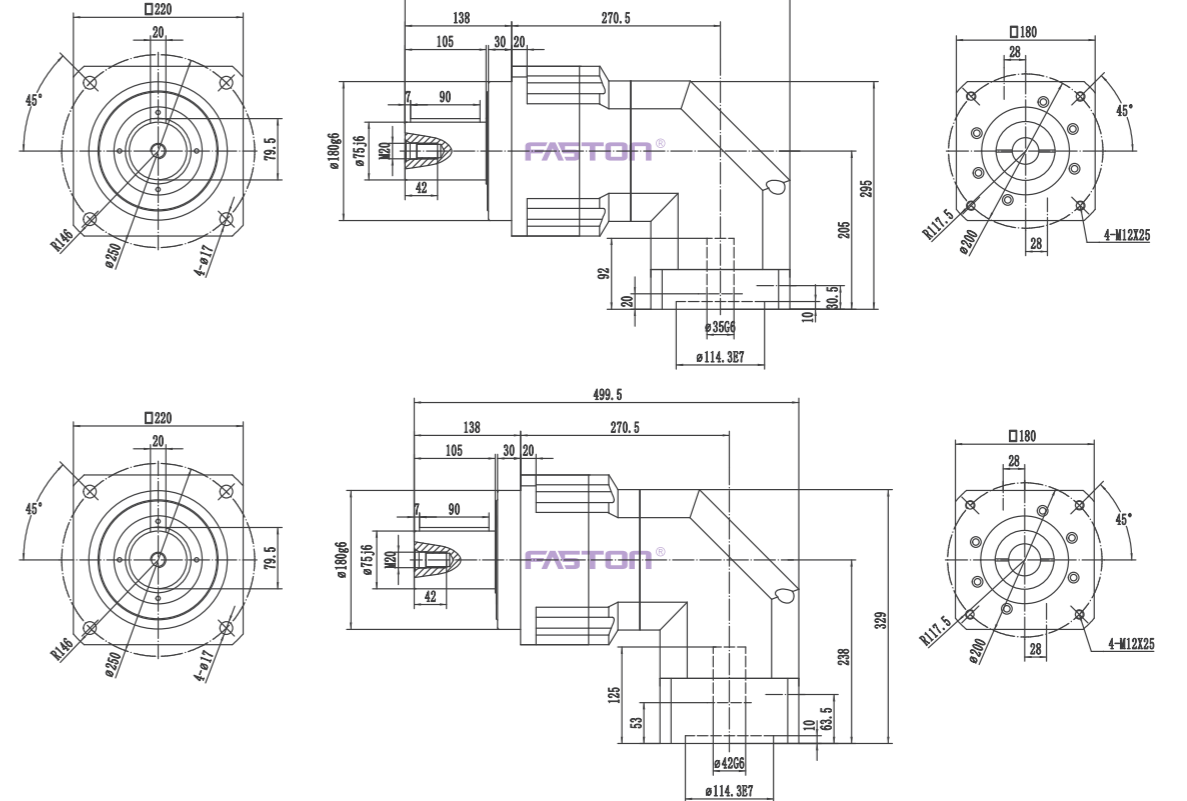
(1) Please refer to the motor shaft diameter
(2) Motor shaft length, for special motor shaft size, please contact FASTON
(3) Reducer input size, depending on the flange surface of the motor
*If no suitable size available, please contact FASTON

FKBR220				单级/One-stage												双级/Two-stage											
速比 ⁽¹⁾ Speed ratio	i			3	4	5	6	7	8	9	10	12	16	20	25	30	35	40	55	60	70	80	100				
额定输出力矩(n _{1N}) Rated output torque	T _{2N}	Nm		1140	1700	2000	1800	1800	1600	1500	1500	1600	1600	150	750	1050	1050	1200	1100	1020	1200	1100	900				
紧急制动力矩 (在减速机使用寿命内允许1000次) Emergency braking torque (1000 times during the working life of the reducer)	T _{2NOT}	Nm	3倍额定输出力矩/3 Times rated output torque																								
额定输入转速(T _{2n} , 20°C环境温度) Rated input speed (T _{2n} , 20 °C ambient temperature)	n _{1N}	rpm	2000																								
最大输入转速 Maximum input speed	n _{1max}	rpm	4000																								
空载力矩(n ₁ =3000rpm, 20°C环境温度) No-load torque (n ₁ =3000 RPM, 20°C ambient temperature)	T ₀₁₂	Nm	33	22	17	8	6	5	4.5	3.5	2.6	2.5	2.3	14	11	11	9	9	8	7	6.8	5					
回程间隙PS Backlash PS	j _t	Arcmin	≤2												≤3												
回程间隙P0 Backlash P0	j _t	Arcmin	≤4												≤5												
回程间隙P1 Backlash P1	j _t	Arcmin	≤6												≤7												
回程间隙P2 Backlash P2	j _t	Arcmin	≤8												≤9												
扭转刚度 Torsional stiffness	C _{t21}	Nm/Arcmin	225																								
最大轴向力 ⁽²⁾ Maximum axial force	F _{2AMax}	N	14000																								
最大径向力 ⁽²⁾ Maximum radial force	F _{2RMax}	N	3000																								
工作效率 Work efficiency	η	%	95												92												
工作寿命 ⁽³⁾ Service life	L _h	h	20000																								
噪音(i=10和n ₁ =3000rpm, 空载) Noise(i=10 and n ₁ =3000rpm, no load)	L _{PA}	DB(A)	≤72																								
重量 Weight	m	Kg	91												55												
安装方向 Installation direction	任意方向/Any direction																										
使用温度 ⁽⁴⁾ Operating temperature	-10~90																										
润滑方式 Lubrication method	终生润滑/Lifetime lubrication																										
防护等级 Protection level	IP65																										
转动惯量 Moment of inertia	42	J ₁	Kgcm ²	80	70	68	65	55	52	45	40	40	38	37	18	16	15.5	14	14	13	12	10.8	9.5				
按减速机输入直径(mm) Input diameter based on the reducer(mm)	55	J ₁	Kgcm ²	130	95	77	75	68	65	60	55	55	50	50	30	28	27	26.5	25.5	24	23	21	19.5				

单级/One-stage



双级/Two-stage



1. 可选其他减速比
2. 输出轴中心点
3. 连续运转时, 使用寿命为10000h
4. 对温度有特殊要求请与法斯頓联系

1. Optional other ratio
2. Output shaft center point
3. Service life of 10000h in continuous operation
4. For special requirements on temperature, please contact FASTON

(1) 请参照马达轴径尺寸
(2) 马达轴最长长度, 如有特殊的马达轴尺寸, 请与法斯頓联系
(3) 减速机输入端尺寸, 依马达的法兰面而定
*如无适合的尺寸, 请与法斯頓联系

(1) Please refer to the motor shaft diameter
(2) Motor shaft length, for special motor shaft size, please contact FASTON
(3) Reducer input size, depending on the flange surface of the motor
*If no suitable size available, please contact FASTON

A ≤ 48

B ≤ 55

C ≤ 35

D ≤ 42