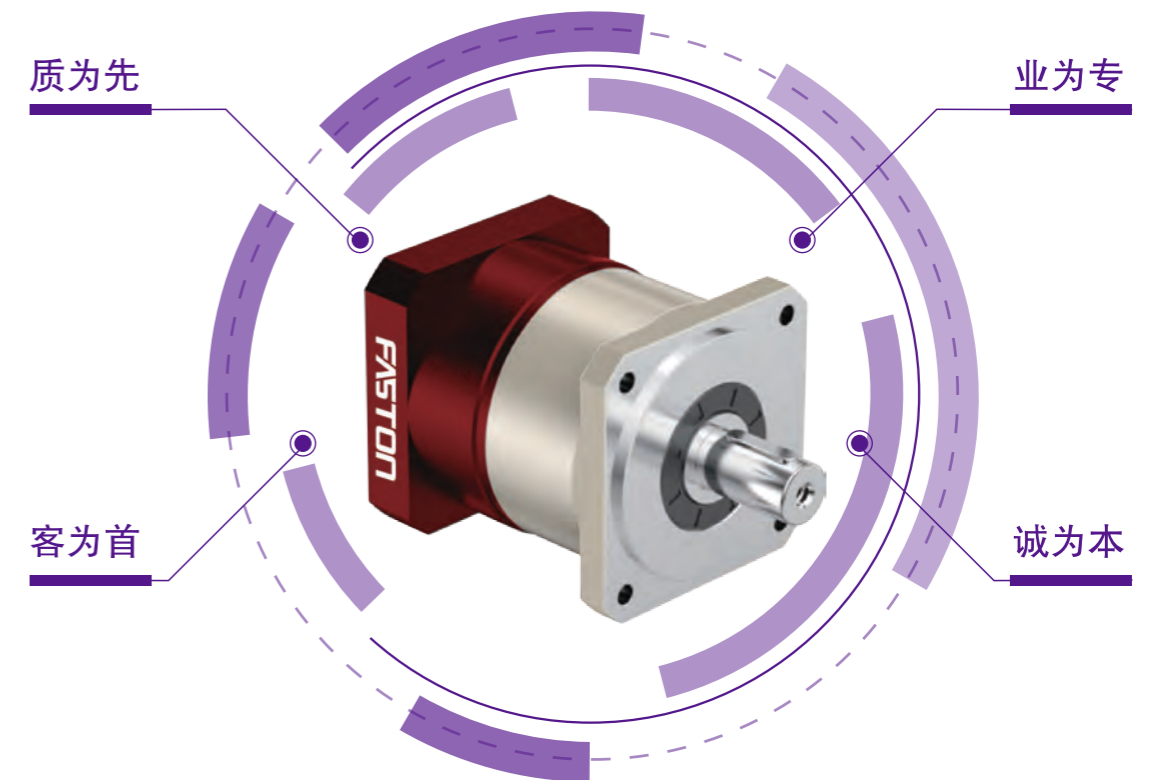


FBS系列—合理的经济选择

FBS SERIES—RATIONAL ECONOMICAL CHOICE

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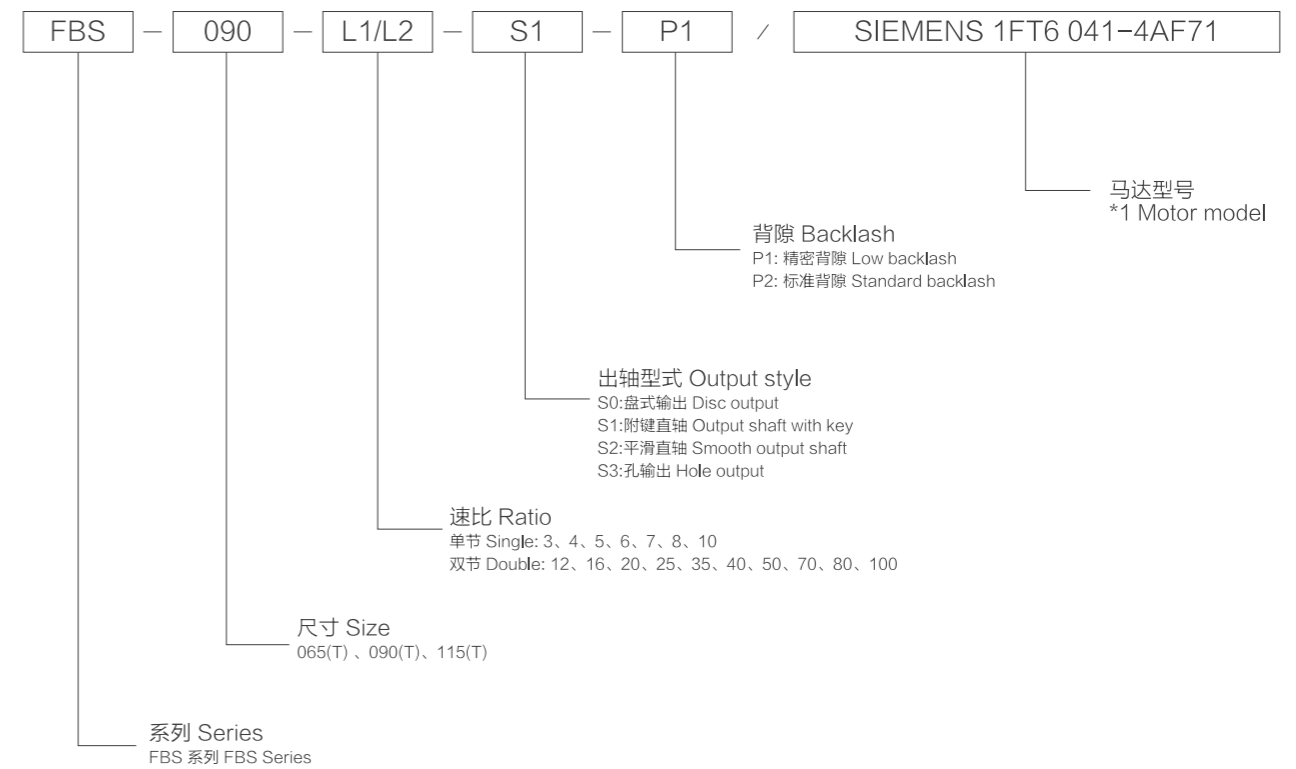


- 低背隙
- 高扭矩
- 高效率(97%)
- 24级减速 $i=3, \dots, 100$
- 低噪音
- 高质量(ISO 9001)
- 多种安装位置
- 简易电机装配
- 终身润滑
- 更多的选配方式
- 旋转方向:同向
- 传动平稳

- low backlash
- high output torque
- high efficiency (97%)
- 24 ratios $i=3, \dots, 100$
- low noise
- high quality (ISO 9001)
- any mounting system
- simple mounting system
- lifetime lubrication
- additional options
- equidirectional rotation
- balanced motor pinion

技术参数* TECHNICAL PARAMETERS

回程间隙 Return clearance	arcmin	3~7
速比 Speed ratio	i	3~100
额定输出力矩 Rated output torque	Nm	32~260
使用温度°C Using temperature°C	°C	-10~90
噪音 The noise	dB(A)	58~63
工作效率 The work efficiency	%	97
工作寿命 The working life	h	20000



*1 适配所有型号马达 可以通过网站上的选型工具来确认。如有不明白之处, 欢迎咨询

*1 Suitable for all types of motors Please refer to reducer selection tool or contact us for more information.



减速机性能资料 REDUCER PERFORMANCE DATA

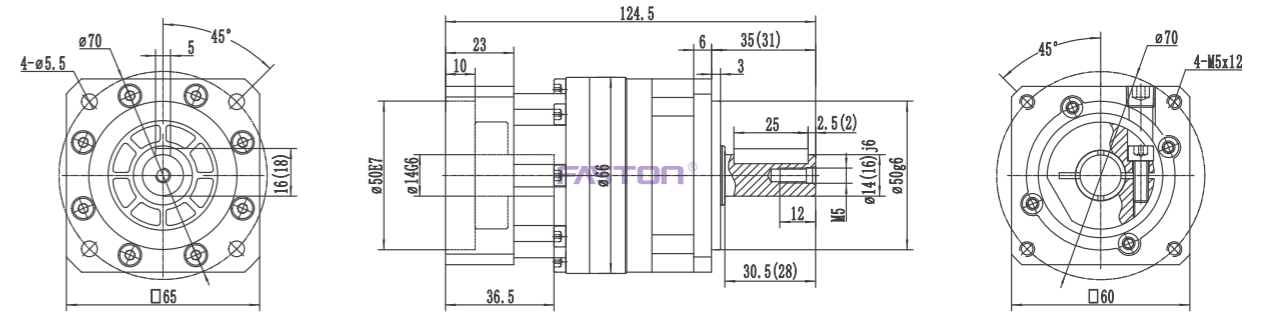
FBS065(T)			单级/One-stage								双级/Two-stage								
速比 ⁽¹⁾⁽²⁾ Speed ratio	i		3	4	5	6	7	8	10	12	16	20	25	35	40	50	70	80	100
额定输出力矩 Rated output torque	T _{2N}	Nm	32	40	45	44	40	38	35	32	40	45	45	40	40	45	40	38	35
急停扭矩 Emergency stop torque	T _{2NOT} ²	Nm	3倍额定输出力矩/3 Times rated output torque																
最大加速力矩 Maximum speed up torque	T _{2B}	Nm	55	72	84	79	72	69	63	55	72	84	84	72	72	84	72	69	63
回程间隙P1 ⁽³⁾ Backlash P1	j ₁	Arcmin	≤3								≤5								
回程间隙P2 ⁽³⁾ Backlash P2	j ₁	Arcmin	≤5								≤7								
扭转刚度 ⁽⁷⁾ Torsional stiffness	C ₁₂₁	Nm/Arcmin	7																
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 _{1B}	rpm	8000																
最大轴向力 ⁽⁴⁾ Maximum axial force	F _{2RB}	N	630																
最大径向力 ⁽⁴⁾ Maximum radial force	F _{2AB}	N	1100																
工作寿命 ⁽⁶⁾ Service life	L _h	hr	20000																
使用温度 Operating temperature	°C		-10°C~+90°C																
润滑方式 Lubrication method			终身润滑																
防护等级 Protection level			IP65																
安装方向 Installation direction			任意方向																
噪音 ⁽⁵⁾⁽⁷⁾ Noise(i=10 and n1=3000rpm, no load)	L _{PA}	DB(A)	≤58																
工作效率 Work efficiency	η	%	≥97%								≥94%								
重量 Weight	m	kg	1.2								1.4								
转动惯量 Moment of inertia 按减速机输入直径(mm) Input diameter based on the reducer(mm)	J ₁	Kgcm ²	0.28	0.25	0.25	0.22	0.18	0.17	0.15	0.18	0.16	0.16	0.15	0.15	0.15	0.15	0.15	0.14	0.14

1. 减速比(i=Nin/Nout)
2. 如有其它特殊减速比的要求, 请与FASTON联络
3. 背隙是在受百分之二的额定输出力矩T2N下测得
4. 输出转速100rpm时, 且作用于输出轴的中心位置
5. 在额定输入转速N1N=3000rpm且无负载的情况下测得
6. 连续运转时, 使用寿命为10000h
7. 以减速机减速比i=10与i=100转速为3000rpm为基准测得

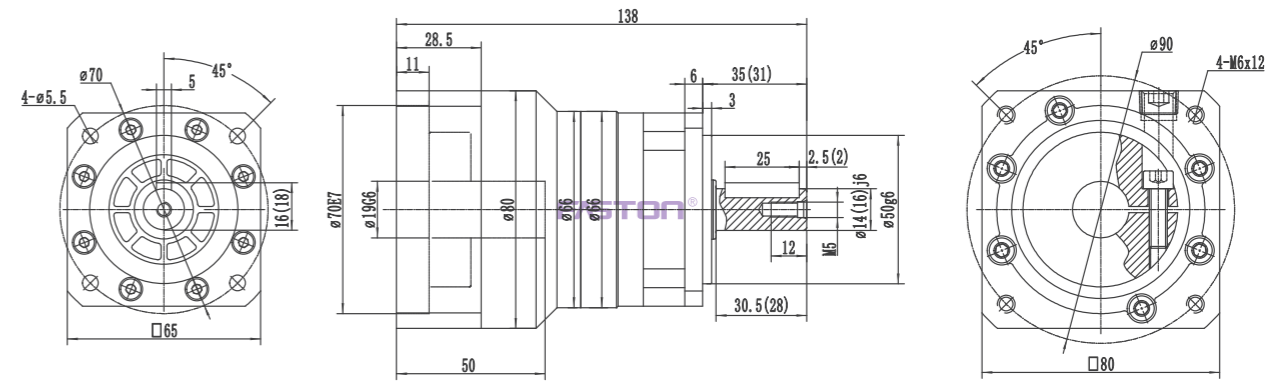
1. Reduction ratio (i=Nin/Nout)
2. If you have other special reduction ratio requirements, please contact FASTON
3. Backlash is measured under 2% of rated output torque T2N
4. When the output speed is 100rpm, and it acts on the center position of the output shaft
5. Measured under the condition of rated input speed N1N=3000rpm and no load
6. In continuous operation, the service life is 10000h
7. Measured based on the speed reduction ratio of the reducer i=10 and i=100 at 3000rpm

减速机性能资料 REDUCER PERFORMANCE DATA

单级/One-stage

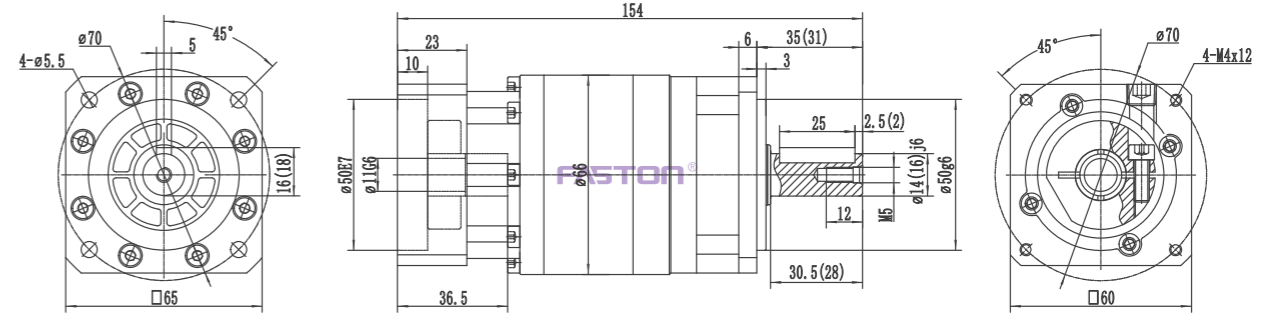


A ≤ 14

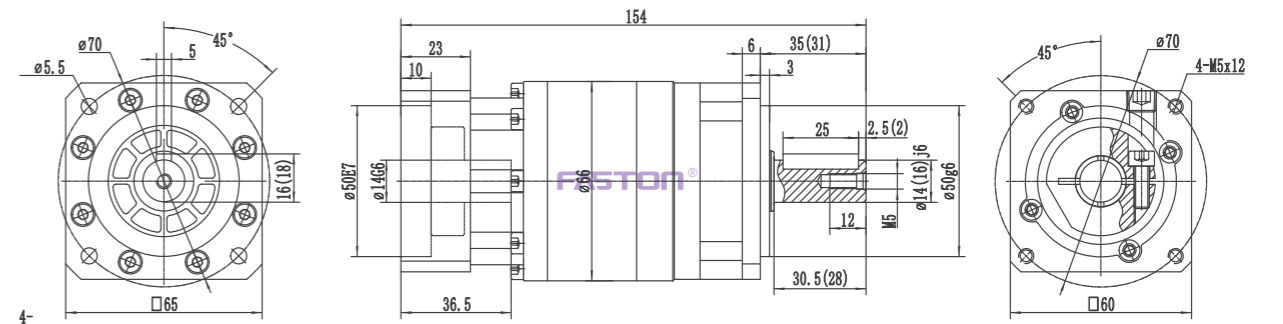


B ≤ 19

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, 请与法斯頓联络
(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

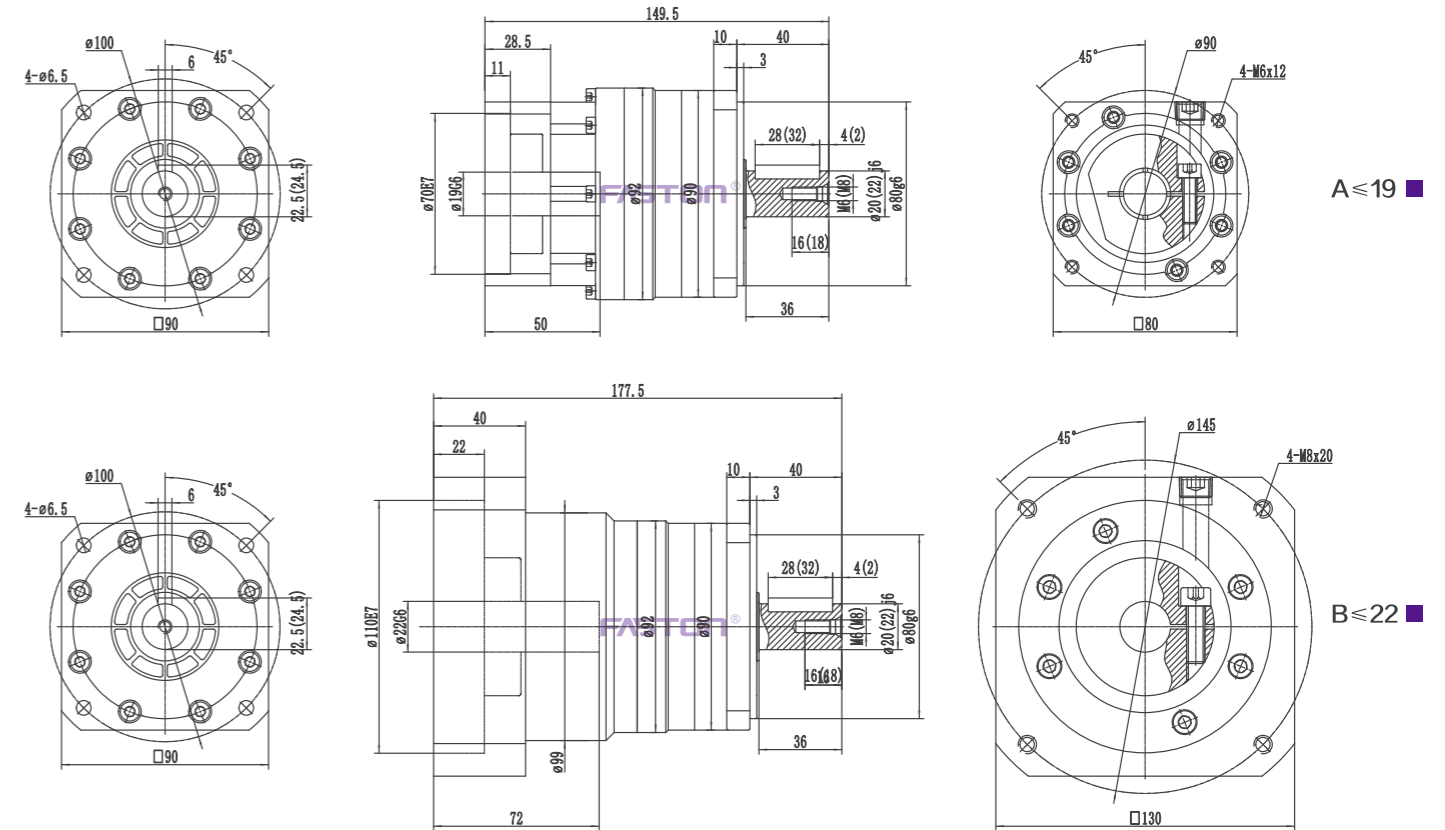
FBS090(T)			单级/One-stage								双级/Two-stage								
速比 ⁽¹⁾⁽²⁾ Speed ratio	i		3	4	5	6	7	8	10	12	16	20	25	35	40	50	70	80	100
额定输出力矩 Rated output torque	T _{2N}	Nm	80	100	115	105	100	90	80	100	115	115	105	100	115	105	100	90	
急停扭矩 Emergency stop torque	T _{2NOT} ²	Nm	3倍额定输出力矩/3 Times rated output torque																
最大加速力矩 Maximum speed up torque	T _{2B}	Nm	151	180	203	192	192	180	171	151	180	203	203	192	180	203	192	180	171
回程间隙P1 ⁽³⁾ Backlash P1	j ₁	Arcmin	≤3								≤5								
回程间隙P2 ⁽³⁾ Backlash P2	j ₂	Arcmin	≤5								≤7								
扭转刚度 ⁽⁷⁾ Torsional stiffness	C ₁₂₁	Nm/Arcmin	14																
额定输入转速 ^(T2n, 20°C环境温度) Rated input speed (T2n, 20 °C ambient temperature)	n _{1N}	rpm	3000																
最大输入转速 Maximum input speed	n _{1B}	rpm	6000																
最大轴向力 ⁽⁴⁾ Maximum axial force	F _{2RB}	N	1230																
最大径向力 ⁽⁴⁾ Maximum radial force	F _{2AB}	N	2200																
工作寿命 ⁽⁶⁾ Service life	L _h	hr	20000																
使用温度 Operating temperature	°C		-10°C~+90°C																
润滑方式 Lubrication method			终身润滑																
防护等级 Protection level			IP65																
安装方向 Installation direction			任意方向																
噪音 ⁽⁵⁾⁽⁷⁾ Noise (i=10 and n1=3000rpm, no load)	L _{PA}	DB(A)	≤60																
工作效率 Work efficiency	η	%	≥97%								≥94%								
重量 Weight	m	kg	2.9								3.6								
转动惯量 Moment of inertia 按减速机输入直径(mm) Input diameter based on the reducer (mm)	J ₁	Kgcm ²	1.3	1.3	1.2	1.1	0.9	0.8	0.7	0.7	0.7	0.7	0.65	0.65	0.6	0.6	0.6	0.5	0.5

1. 减速比(i=Nin/Nout)
2. 如有其它特殊减速比的要求, 请与FASTON联络
3. 背隙是在受百分之二的额定输出力矩T2N下测得
4. 输出转速100rpm时, 且作用于输出轴的中心位置
5. 在额定输入转速N1N=3000rpm且无负载的情况下测得
6. 连续运转时, 使用寿命为10000h
7. 以减速机减速比i=10与i=100转速为3000rpm为基准测得

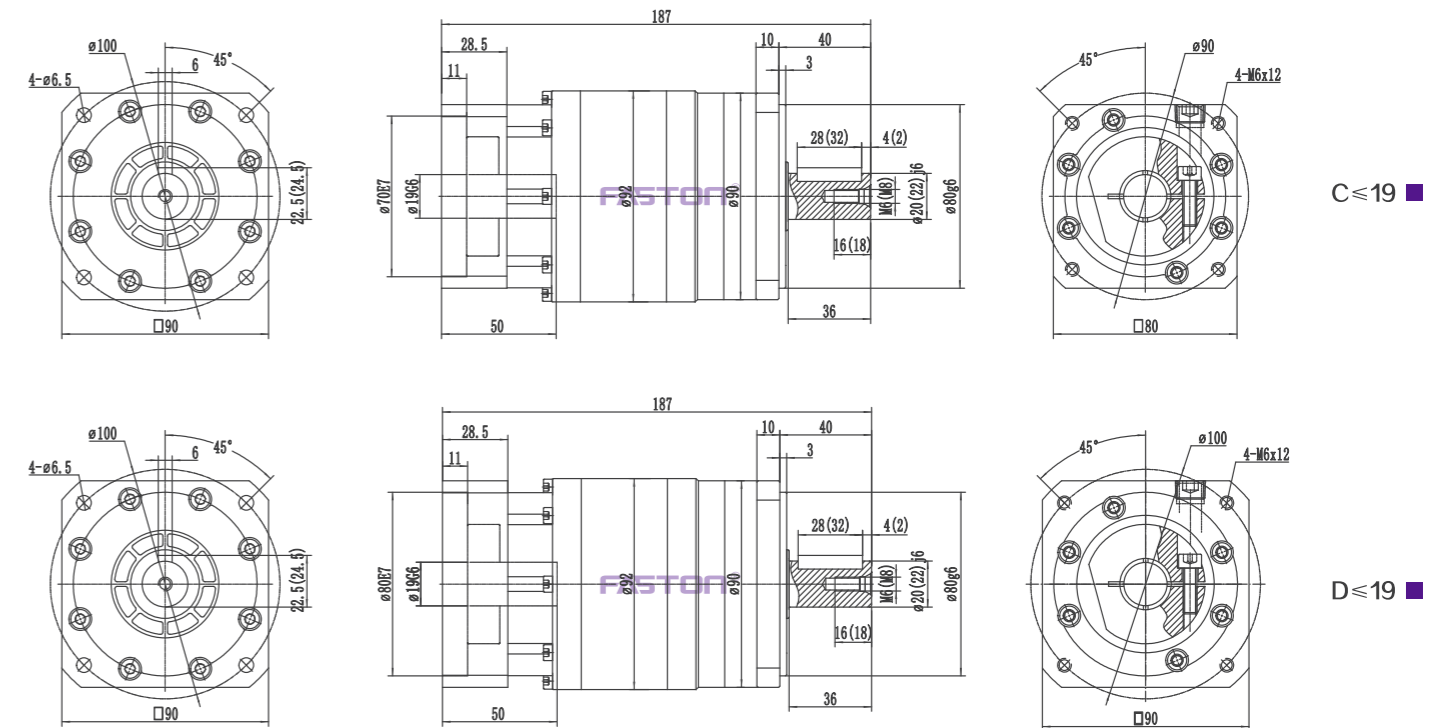
1. Reduction ratio (i=Nin/Nout)
2. If you have other special reduction ratio requirements, please contact FASTON
3. Backlash is measured under 2% of rated output torque T2N
4. When the output speed is 100rpm, and it acts on the center position of the output shaft
5. Measured under the condition of rated input speed N1N=3000rpm and no load
6. In continuous operation, the service life is 10000h
7. Measured based on the speed reduction ratio of the reducer i=10 and i=100 at 3000rpm

减速机性能资料 REDUCER PERFORMANCE DATA

单级/One-stage



双级/Two-stage



(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, 请与法斯頓联络
(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

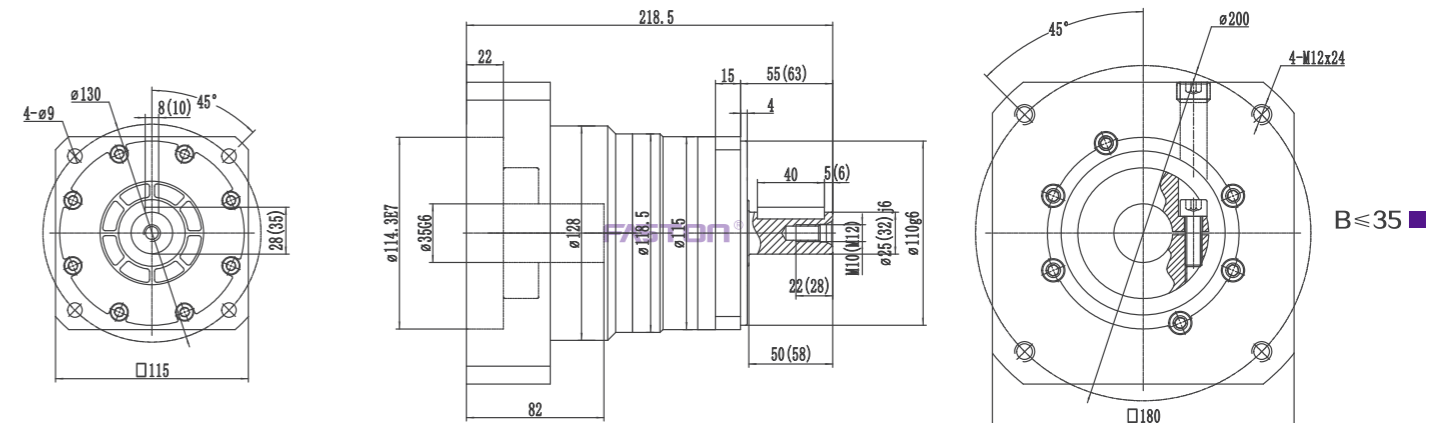
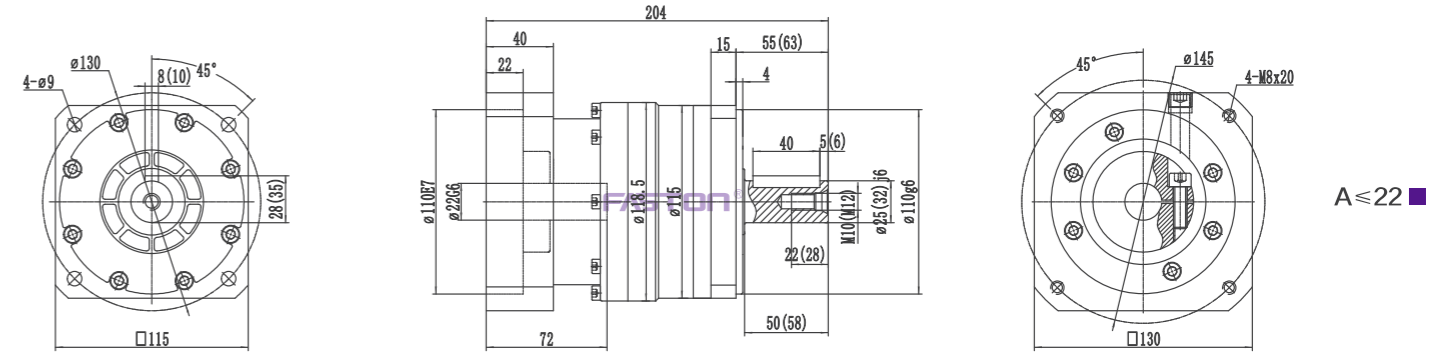
FBS115(T)			单级/One-stage								双级/Two-stage								
速比 ⁽¹⁾⁽²⁾ Speed ratio	i		3	4	5	6	7	8	10	12	16	20	25	35	40	50	70	80	100
额定输出力矩 Rated output torque	T _{2N}	Nm	160	220	260	240	235	220	190	160	220	260	260	235	220	260	235	220	190
急停扭矩 Emergency stop torque	T _{2NOT} ²	Nm	3倍额定输出力矩/3 Times rated output torque																
最大加速力矩 Maximum speed up torque	T _{2B}	Nm	310	426	492	458	455	426	368	310	426	492	492	455	426	492	455	426	368
回程间隙P1 ⁽³⁾ Backlash P1	j ₁	Arcmin	≤3								≤5								
回程间隙P2 ⁽³⁾ Backlash P2	j ₂	Arcmin	≤5								≤7								
扭转刚度 ⁽⁷⁾ Torsional stiffness	C ₁₂₁	Nm/Arcmin	25																
额定输入转速 ^(T2n, 20°C环境温度) Rated input speed (T2n, 20 °C ambient temperature)	n _{1N}	rpm	3000																
最大输入转速 Maximum input speed	n _{1B}	rpm	6000																
最大轴向力 ⁽⁴⁾ Maximum axial force	F _{2RB}	N	2550																
最大径向力 ⁽⁴⁾ Maximum radial force	F _{2AB}	N	5025																
工作寿命 ⁽⁶⁾ Service life	L _h	hr	20000																
使用温度 Operating temperature	°C		-10°C~+90°C																
润滑方式 Lubrication method			终身润滑																
防护等级 Protection level			IP65																
安装方向 Installation direction			任意方向																
噪音 ⁽⁵⁾⁽⁷⁾ Noise (i=10 and n1=3000rpm, no load)	L _{PA}	DB(A)	≤63								≤63								
工作效率 Work efficiency	η	%	≥97%								≥94%								
重量 Weight	m	kg	6.8								8.7								
转动惯量 Moment of inertia 按减速机输入直径(mm) Input diameter based on the reducer (mm)	J ₁	Kgcm ²	4.8	4.6	4.5	4	3.5	2.7	2.5	2.2	2.1	2.1	2	2	1.9	1.8	1.8	1.7	1.7

1. 减速比 (i=Nin/Nout)
2. 如有其它特殊减速比的要求, 请与FASTON联络
3. 背隙是在受百分之二的额定输出力矩T2N下测得
4. 输出转速100rpm时, 且作用于输出轴的中心位置
5. 在额定输入转速N1N=3000rpm且无负载的情况下测得
6. 连续运转时, 使用寿命为10000h
7. 以减速机减速比i=10与i=100转速为3000rpm为基准测得

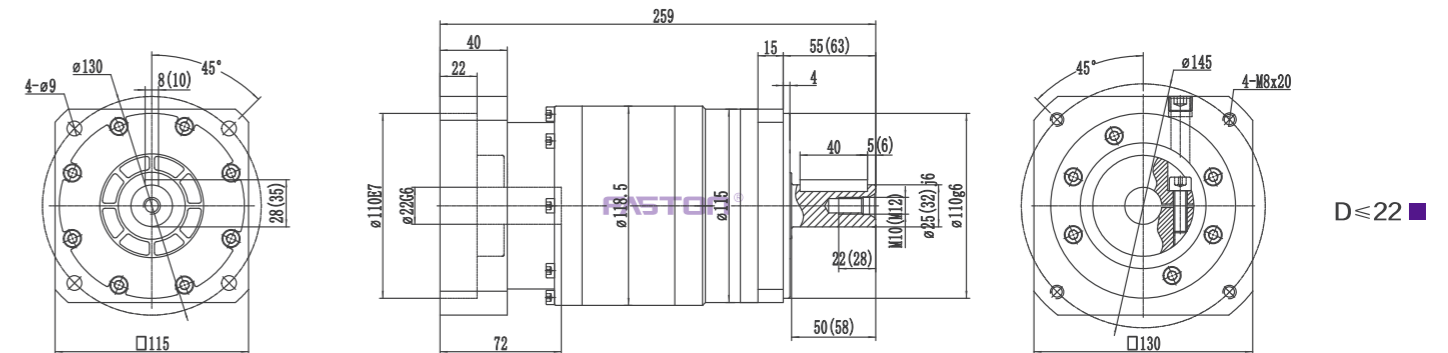
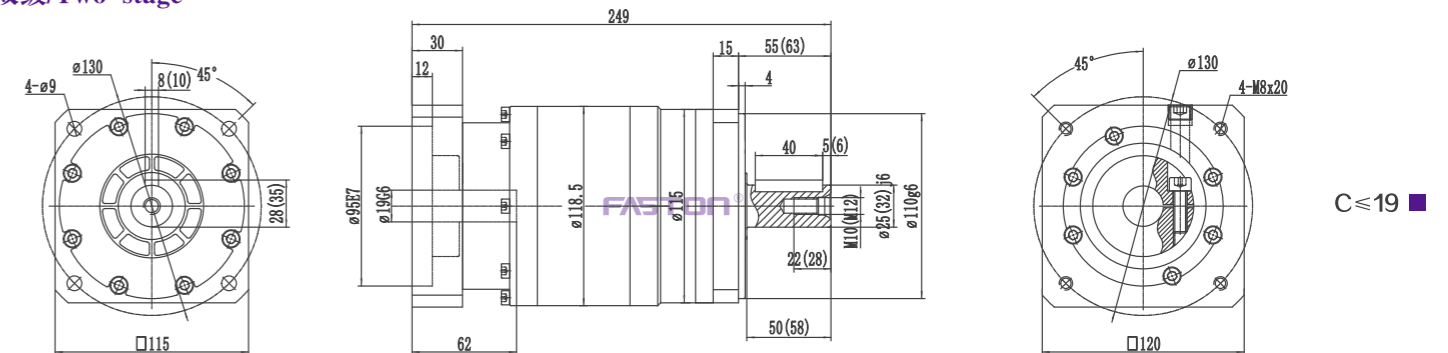
1. Reduction ratio (i=Nin/Nout)
2. If you have other special reduction ratio requirements, please contact FASTON
3. Backlash is measured under 2% of rated output torque T2N
4. When the output speed is 100rpm, and it acts on the center position of the output shaft
5. Measured under the condition of rated input speed N1N=3000rpm and no load
6. In continuous operation, the service life is 10000h
7. Measured based on the speed reduction ratio of the reducer i=10 and i=100 at 3000rpm

减速机性能资料 REDUCER PERFORMANCE DATA

单级/One-stage



双级/Two-stage



- (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, 请与法斯頓联络
- (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