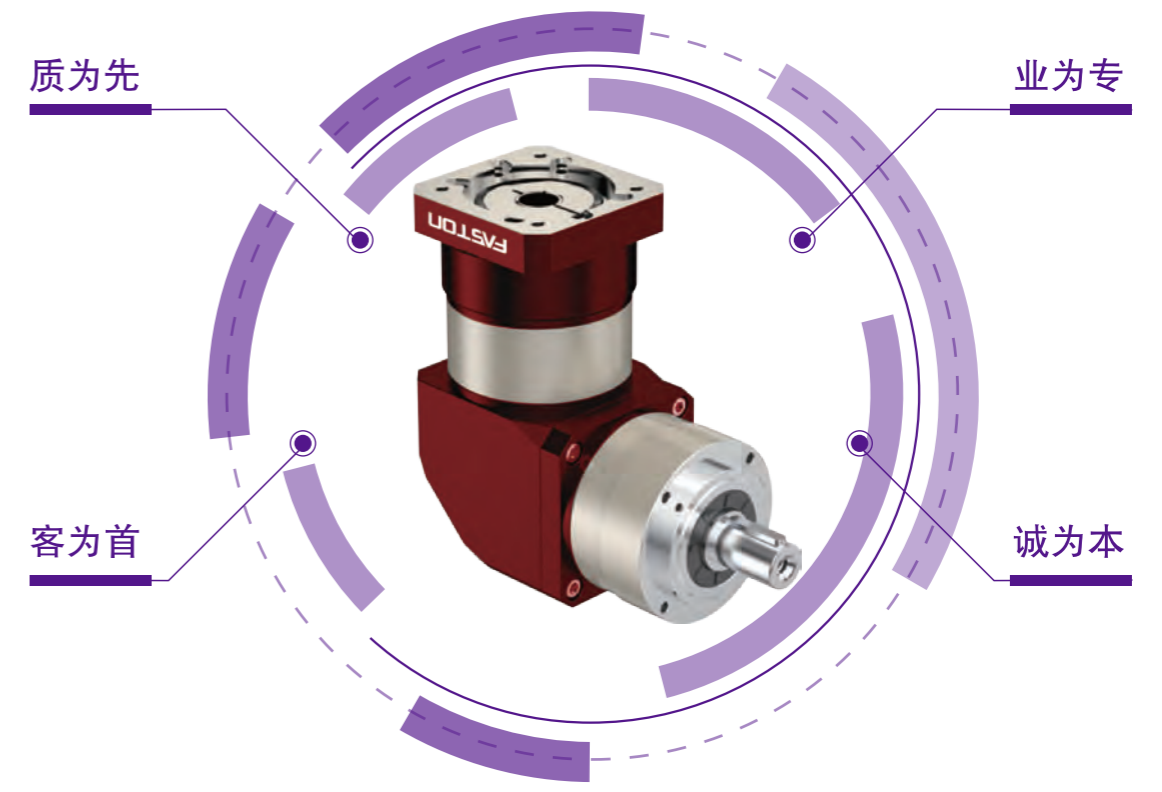


FAER系列—合理的经济选择

FAER SERIES—RATIONAL ECONOMICAL CHOICE

195/196

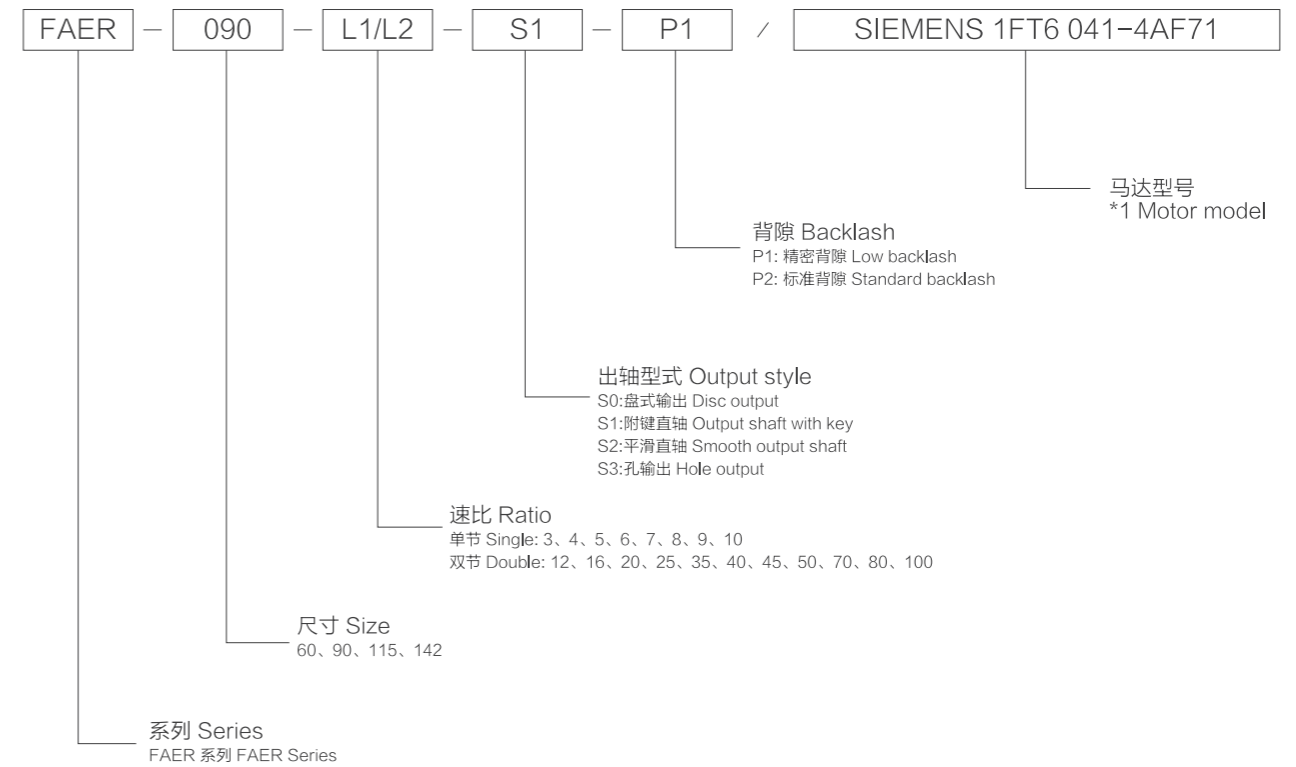


- 低背隙
  - 高扭矩
  - 高效率(94%)
  - 24级减速  $i=3, \dots, 100$
  - 低噪音
  - 高质量(ISO 9001)
- 多种安装位置
  - 简易电机装配
  - 终身润滑
  - 更多的选配方式
  - 旋转方向:同向
  - 传动平稳

- low backlash
  - high output torque
  - high efficiency (94%)
  - 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	5~7
速比 Speed ratio	i	3~100
额定输出力矩 Rated output torque	Nm	32~530
使用温度°C Using temperature°C	°C	-10~90
噪音 The noise	dB(A)	63~70
工作效率 The work efficiency	%	70
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

项目/Item	单位/Unit	级数/Stage	i	FAER060	FAER90	FAER115	FAER142
额定输出力矩 $T_{2N}$ Rated output torque $T_{2N}$	Nm	单级 One-stage	3	32	80	160	275
			4	40	100	220	435
			5	45	115	260	530
			6	44	105	240	410
			7	40	105	235	410
			8	38	100	220	400
			10	35	90	190	350
		双级 Two-stage	12	32	80	160	275
			16	40	100	220	435
			20	45	115	260	530
			25	45	115	260	530
			35	40	105	235	410
			40	40	100	220	435
			50	45	115	260	530
			70	40	105	235	410
			80	38	100	220	400
			100	35	90	190	350

项目/Item	单位/Unit	级数/Stage	i	FAER060	FAER90	FAER115	FAER142
最大加速力矩 $T_{2B}$ Maximum speed up torque $T_{2B}$	Nm	单级 One-stage	3	55	151	310	525
			4	72	180	426	830
			5	84	203	492	985
			6	79	192	458	784
			7	72	192	455	795
			8	69	180	426	764
			10	63	171	368	668
		双级 Two-stage	12	55	151	310	525
			16	72	180	426	830
			20	84	203	492	985
			25	84	203	492	985
			35	72	192	455	795
			40	72	180	426	830
			50	84	203	492	985
			70	72	192	455	795
			80	69	180	426	764
			100	63	171	368	668

减速机性能资料 REDUCER PERFORMANCE DATA

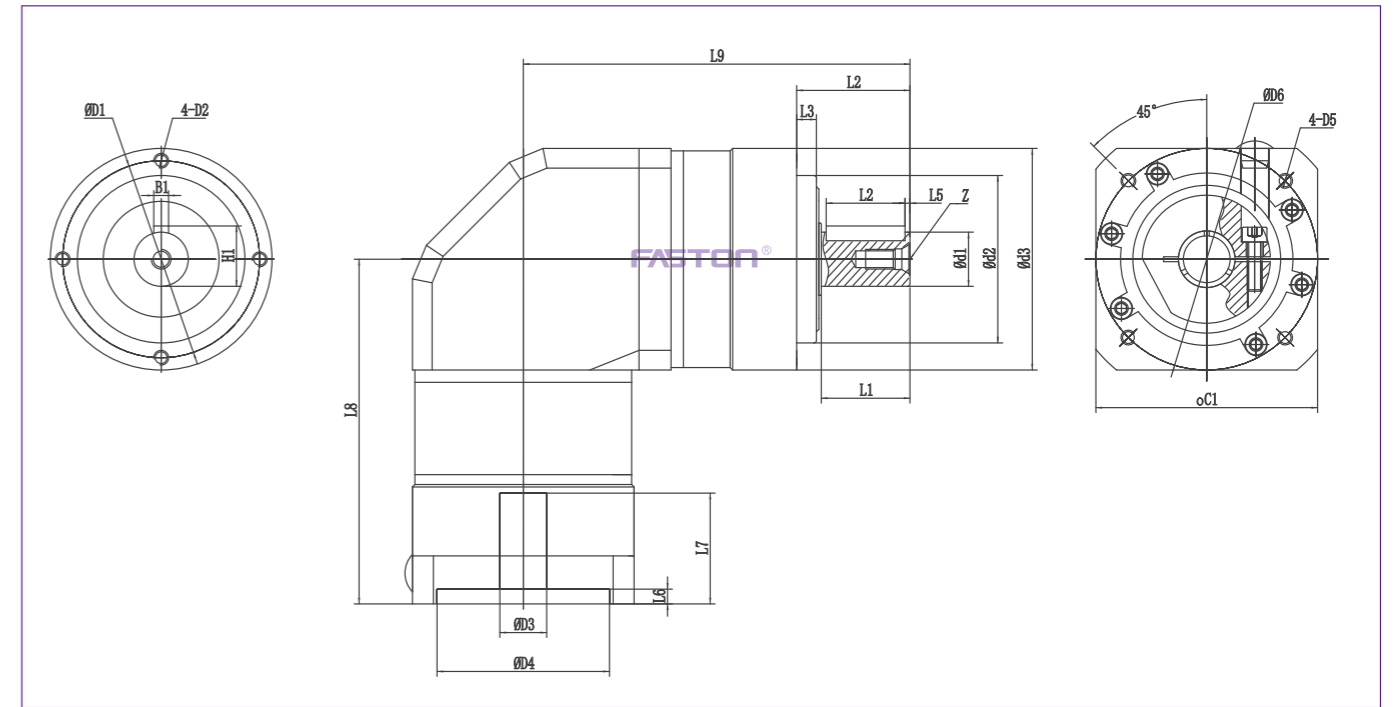
项目/Item	单位/Unit	级数/Stage	i	FAER060	FAER90	FAER115	FAER142
急停扭矩 $T_{2NOT}^2$ Emergency stop torque $T_{2NOT}^2$	Nm	单级 One-stage	3	96	240	480	825
			4	120	300	660	1305
			5	135	345	780	1590
			6	132	315	720	1230
			7	120	315	705	1230
			8	114	300	660	1200
			10	105	270	570	1050
		双级 Two-stage	12	96	240	480	825
			16	120	300	660	1305
			20	135	345	780	1590
			25	135	345	780	1590
			35	120	315	705	1230
			40	120	300	660	1305
			50	135	345	780	1590
			70	130	315	705	1230
			80	114	300	660	1200
			100	105	270	570	1050

项目/Item	单位/Unit	级数/Stage	i	FAER060	FAER90	FAER115	FAER142
转动惯量 $J_1$ Moment of inertia $J_1$ 按减速机输入直径(mm) Input diameter based on the reducer(mm)	Kg · cm <sup>2</sup>	单级 One-stage	3	0.28	1.3	4.8	14.5
			4	0.25	1.3	4.6	12
			5	0.25	1.2	4.5	11
			6	0.22	1.1	4	10
			7	0.18	0.9	3.5	10
			8	0.17	0.8	2.7	9.5
			10	0.15	0.7	2.5	9
		双级 Two-stage	12	0.18	0.7	2.2	14.5
			16	0.16	0.7	2.1	12
			20	0.16	0.7	2.1	11
			25	0.15	0.65	2	10
			35	0.15	0.65	2	10
			40	0.15	0.6	1.9	9.5
			50	0.15	0.6	1.8	9.5
			70	0.15	0.6	1.8	9
			80	0.14	0.5	1.7	9
			100	0.14	0.5	1.7	13

减速机性能资料 REDUCER PERFORMANCE DATA

减速机性能资料 REDUCER PERFORMANCE DATA

系列/Series	单位/Unit	FAER	级数/Stage
工作寿命 <sup>(6)</sup> Service life	L <sub>h</sub>	20000	
工作效率 Work efficiency	%	95	1
		92	2
使用温度 Operating temperature	℃	-10℃~+90℃	
防护等级 Protection level		IP65	
润滑方式 Lubrication method		终身润滑	
安装方向 Installation direction		任意方向	



系列/Series	单位/Unit	FAER060	FAER90	FAER115	FAER142	级数/Stage
回程间隙P1 <sup>(3)</sup> Backlash P1	Arcmin	≤5	≤5	≤5	≤5	1
		≤7	≤7	≤7	≤7	
回程间隙P2 <sup>(3)</sup> Backlash P2	Arcmin	≤7	≤7	≤7	≤7	2
		≤9	≤9	≤9	≤9	
额定输入转速n <sub>1N</sub> Rated input speed	rpm	3000	3000	3000	3000	
最大输入转速n <sub>1B</sub> Maximum input speed	rpm	6000	6000	6000	6000	
最大轴向力F <sub>2rB</sub> <sup>(4)</sup> Maximum axial force	N	630	1230	2550	3780	
最大径向力F <sub>2aB</sub> <sup>(4)</sup> Maximum radial force	N	1100	2200	5025	7610	
扭转刚度 <sup>(7)</sup> Torsional stiffness	Nm/arcmin	7	14	25	50	
重量 Weight	m	1.8	3.7	9.8	19.2	1
		2.1	4.2	10.3	20.3	2
噪音L <sub>PA</sub> <sup>(5)(7)</sup> Noise	DB(A)	≤63	≤65	≤68	≤70	

项目/Item		FAER060	FAER90	FAER115	FAER142	
输出端 Output	d1 轴径shaft diameter	h6	16	22	32	40
	d2定位凸台centering	g6	52	68	90	120
	d3箱体直径body diameter	4x	60	90	115	142
	D1螺纹×深度mounting threadxdepth		M5×10	M6×12	M8×16	M10×20
	D2螺纹孔分布圆直径threaded hole circle diameter		62	80	108	140
	L1输出轴长shaft length from output		28	36	58	79
	L2轴长自定位凸台起shaft length from spigot		36	46	70	97
	L3定位凸台厚度spigot depth		5	8	9.5	12
	L4键长key length		25	32	40	63
	L5至轴末端的距离 distance from shaft end		2	2	6	5
	Z中心孔centre bore		M5×12	M8×18	M12×28	M16×36
	B1键宽Key wide		5	6	10	12
H1键key		18	24.5	35	43	
输入端 Input	D3马达轴径motor shaft diameter	G7	14	19	22	35
	D4马达定位止口center bore for montor	G7	50	70	110	114.3
	D5螺纹×深度mounting threadxdepth	4x	M5×12	M6×12	M8×20	M12×24
	D6螺纹孔分布圆直径threaded hole circle diameter		70	90	145	200
	L6马达定位止口深度motor location depth		6	6	8	8
	L7马达轴长度motor shaft length		32	45	70.5	81
C1输入法兰截面fange section	□	65	90	130	180	
中心距 centerline spacing	L8输入端中心距 input terminal to center		117.75	140	197.5	239
	L9输出端中心距output terminal to center		128.5	157	219.5	265.5

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