

CODE: 836388

Lim-Tec[®] Catalog 2024

EMB-Series (Ball Screw - Economical Series)



Lim-Tec (Beijing) Transmission Equipment Co., Ltd.

On Feb.25, 2016, Lim-Tec successfully landed on NEEQ with the code of 836388, pioneering the linear motion development in China.

In 2005, Joint Venture Enterprise Lim-Tec (Beijing) Transmission Equipment Co.,Ltd was set up by Lim-Tec Group and Beijing Reloh International Trade Co., Ltd to introduce advanced European linear motion technology and the concept of modular combination design, guiding the new direction of domestic screw jack and linear actuator industry.

We have more than 10 branch offices in China to provide high-quality products, well-rounded technical support and prompt after-sales service. Up to Nov.30, 2020, there were 200000 sets of products successfully applied to automobile equipment, automation assembly, metallurgical industry,aerospace industry, port machinery and other industries.

200 million RMB has been invested to introduce nearly a hundred CNC machine tools as well as to build a modern 20 thousand metre square plant with constant temperature control. Eventually, our anual production capacity has reached 50 thousand sets, making Lim-Tec a competitive and professional linear actuator/screw jack/servo actuator manufacturing centre in the world.





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「 EMB SERIES ECONOMICAL SERVO ACTUATOR 」

■ Economical servo actuator EMB features:

Miniature electric actuators with a load range of 5kg to 1500kg.

Compact design, 30% smaller in size compared to similar products.

All components are modularly assembled, standardized and cost-effective.

Rolled ball screw, high efficiency, high speed.

The built-in program is a perfect replacement for small linear mechanisms such as pneumatic cylinders and other small linear mechanisms.

Silent design, maintenance-free.

Performance table:

Model	EMB05	EMB10	EMB20		EMB30		
Lead mm	2	4	5	10	5	10	25
Rated force KN	0.35	1	5	4.8	8.5	13	8.7
Max. Speed mm/s	200	333	275	550	166	332	830
Torque at rated force Nm	0.17	1.00	6.22	11.94	10.57	32.34	54.12
Dynamic load of Ball Screw KN	4	5	10.5	12	9.4	15.6	16.5
Parallel mounting inertia $\text{kgm}^2 \cdot 10^{-3}$	0.028	0.042	0.1	0.18	1.388	2.409	2.527
Inline coupling inertia $\text{kgm}^2 \cdot 10^{-4}$	0.013	0.027	0.08	0.09	0.763	0.784	0.885
Inertia/100mm $\text{kgm}^2 \cdot 10^{-4}$	0.008	0.016	0.052	0.056	0.303	0.309	0.355
Max. Stroke mm	300	300	500		800		
Max. input rpm	4500	4000	3000		2750		
Max. Acceleration m/s^2	6	3	3	6	3	6	10
Weight (Without motor) kg	1.22	1.35	6.9		15.3		
Weight per 100mm stroke kg	0.36	0.47	0.54		1.3		
Max.idling angle	± 0.3	± 0.3	± 0.3		± 0.3		
Axial backlash mm	0.04	0.05	0.05		0.05		
Lead Tolerance within 300mm/mm	0.05	0.05	0.05		0.05		
Repeat accuracy mm	0.02	0.02	0.02		0.03		

EMB05 Performance Specification

Model	Lead mm	Reducer	Ratio	Speed at 3000rpm mm/s	Actual load N										Max.linear speed mm/s
					350		300		200		100		50		
					Power KW	Torque Nm	Power KW	Torque Nm	Power KW	Torque Nm	Power KW	Torque Nm	Power KW	Torque Nm	
EMB05-02	2	Parallel 1:1	NON	100	0.055	0.174	0.047	0.149	0.031	0.100	0.016	0.050	0.008	0.025	200
		Inline shaft coupling 1:1	NON	100	0.049	0.155	0.042	0.133	0.028	0.088	0.014	0.044	0.007	0.022	200

EMB10 Performance Specification

Model	Lead mm	Reducer	Ratio	Speed at 3000rpm mm/s	Actual load N										Max.linear speed mm/s	
					1000		800		500		300		100			
					Power KW	Torque Nm	Power KW	Torque Nm	Power KW	Torque Nm	Power KW	Torque Nm	Power KW	Torque Nm		
EMB10-04	4	Parallel 1:1	NON	200	0.313	0.995	0.250	0.796	0.156	0.498	0.094	0.299	0.094	0.299	333	
			1:3	67	0.110	0.349	0.088	0.279	0.055	0.175	0.033	0.105	0.033	0.105	333	
			1:5	40	0.066	0.210	0.053	0.168	0.033	0.105	0.020	0.063	0.020	0.063	333	
		Parallel 2:1	NON	100	0.156	0.498	0.125	0.398	0.078	0.249	0.047	0.149	0.047	0.150	333	
			Inline shaft coupling 1:1	NON	200	0.278	0.885	0.222	0.708	0.139	0.442	0.083	0.265	0.083	0.265	333
			1:3	67	0.098	0.310	0.078	0.248	0.049	0.155	0.029	0.093	0.029	0.093	333	
				1:5	40	0.059	0.186	0.047	0.149	0.029	0.093	0.018	0.056	0.018	0.056	333

EMB20 Performance Specification

Model	Lead mm	Reducer	Ratio	Speed at 3000rpm mm/s	Actual load N										Max.linear speed mm/s	
					5000		3500		1500		1000		500			
					Power KW	Torque Nm	Power KW	Torque Nm	Power KW	Torque Nm	Power KW	Torque Nm	Power KW	Torque Nm		
EMB20-05	5	Parallel 1:1	NON	250	1.912	6.088	1.339	4.262	0.574	1.827	0.383	1.218	0.191	0.609	275	
			1:3	83	0.671	2.136	0.470	1.495	0.201	0.641	0.134	0.427	0.067	0.214	275	
			1:5	50	0.403	1.282	0.281	0.897	0.121	0.385	0.081	0.237	0.040	0.128	275	
			1:10	25	0.202	0.641	0.141	0.449	0.061	0.193	0.041	0.119	0.020	0.064	275	
		Parallel 2:1	NON	125	0.956	3.044	0.670	2.131	0.287	0.914	0.192	0.609	0.096	0.305	275	
			Inline shaft coupling 1:1	NON	250	1.738	5.535	1.217	3.875	0.522	1.661	0.348	1.107	0.174	0.554	275
				1:3	83	0.610	1.942	0.427	1.359	0.183	0.583	0.122	0.388	0.061	0.195	275
				1:5	50	0.366	1.165	0.255	0.815	0.110	0.350	0.074	0.215	0.036	0.116	275
				1:10	25	0.184	0.583	0.128	0.408	0.055	0.118	0.037	0.108	0.018	0.058	275
					4800		3500		1500		1000		500			
EMB20-10	10	Parallel 1:1	NON	500	3.531	11.240	2.575	8.196	1.104	3.513	0.736	2.342	0.368	1.171	550	
			1:3	167	1.239	3.944	0.904	2.876	0.387	1.233	0.258	0.822	0.129	0.411	550	
			1:5	100	0.743	2.366	0.542	1.718	0.232	0.740	0.155	0.493	0.077	0.247	550	
			1:10	50	0.372	1.183	0.271	0.859	0.116	0.370	0.078	0.247	0.039	0.124	550	
		Parallel 2:1	NON	250	1.766	5.620	1.288	4.098	0.552	1.756	0.368	1.171	0.184	0.586	550	
			Inline shaft coupling 1:1	NON	500	3.210	10.218	2.341	7.451	1.004	3.194	0.669	2.129	0.335	1.065	550
				1:3	167	1.126	3.585	0.822	2.615	0.352	1.121	0.235	0.747	0.117	0.374	550
				1:5	100	0.675	2.151	0.493	1.562	0.211	0.673	0.141	0.448	0.070	0.225	550
				1:10	50	0.338	1.076	0.247	0.781	0.106	0.337	0.071	0.224	0.035	0.113	550

EMB30 Performance Specification

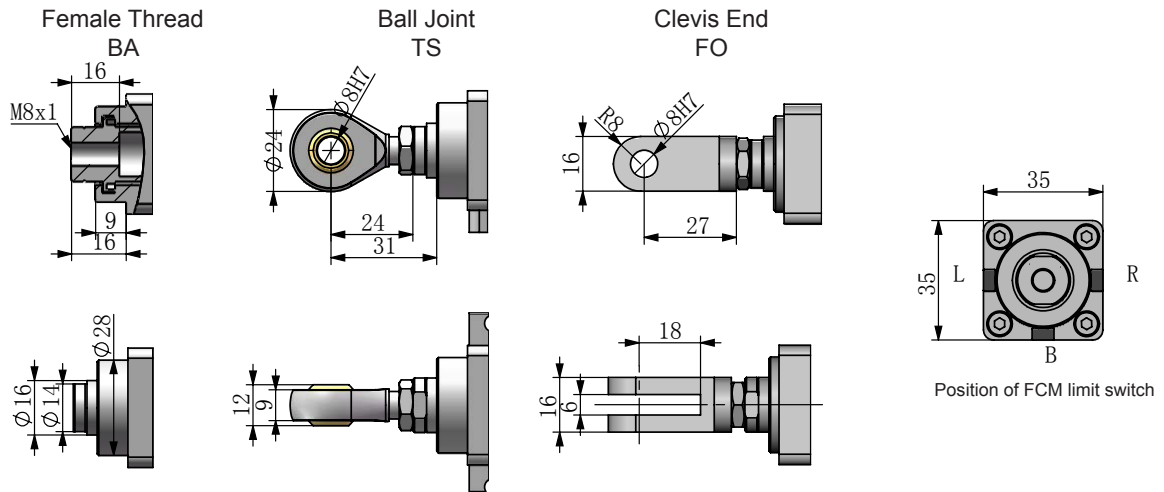
Model	Lead mm	Reducer	Ratio	Speed at 1500rpm mm/s	Actual load N										Max.linear speed mm/s	
					8500		6000		4000		2000		1000			
					Power KW	Torque Nm	Power KW	Torque Nm	Power KW	Torque Nm	Power KW	Torque Nm	Power KW	Torque Nm		
EMB30-05	5	Parallel 1:1	NON	125	1.661	10.574	1.172	7.464	0.782	4.976	0.391	2.488	0.195	1.244	166	
			1:3	42	0.583	3.710	0.411	2.619	0.274	1.746	0.137	0.873	0.069	0.437	166	
			1:5	25	0.350	2.226	0.247	1.571	0.165	1.048	0.082	0.524	0.041	0.262	166	
			1:10	13	0.175	1.113	0.123	0.786	0.082	0.524	0.041	0.262	0.021	0.131	166	
			1:20	6	0.092	0.587	0.065	0.415	0.043	0.276	0.022	0.138	0.011	0.069	166	
			1:50	3	0.037	0.235	0.026	0.166	0.017	0.111	0.009	0.055	0.004	0.028	166	
		Parallel 2:1	NON	63	0.830	5.287	0.586	3.732	0.391	2.488	0.195	1.244	0.098	0.622	166	
			Inline shaft coupling 1:1	NON	125	1.476	9.399	1.042	6.635	0.695	4.423	0.347	2.212	0.174	1.106	166
				1:3	42	0.518	3.298	0.366	2.328	0.244	1.552	0.122	0.776	0.061	0.388	166
				1:5	25	0.311	1.979	0.219	1.397	0.146	0.931	0.073	0.466	0.037	0.233	166
				1:10	13	0.155	0.989	0.110	0.698	0.073	0.466	0.037	0.233	0.018	0.116	166
				1:20	6	0.082	0.522	0.058	0.369	0.039	0.246	0.019	0.123	0.010	0.061	166
				1:50	3	0.033	0.209	0.023	0.147	0.015	0.098	0.008	0.049	0.004	0.025	166

Model	Lead mm	Reducer	Ratio	Speed at 1500rpm mm/s	Actual load N										Max.linear speed mm/s	
					12500		10000		8000		5000		2500			
					Power KW	Torque Nm	Power KW	Torque Nm	Power KW	Torque Nm	Power KW	Torque Nm	Power KW	Torque Nm		
EMB30-10	10	Parallel 1:1	NON	250	4.781	30.442	3.825	24.354	3.060	19.483	1.913	12.177	0.957	6.089	332	
			1:3	83	1.678	10.683	1.342	8.545	1.074	6.836	0.671	4.273	0.336	2.136	332	
			1:5	50	1.007	6.409	0.805	5.127	0.644	4.102	0.403	2.564	0.201	1.282	332	
			1:10	25	0.503	3.205	0.403	2.564	0.322	2.051	0.202	1.282	0.101	0.641	332	
			1:20	13	0.252	1.603	0.202	1.282	0.161	1.026	0.101	0.641	0.051	0.321	332	
			1:50	5	0.101	0.641	0.081	0.513	0.064	0.410	0.040	0.256	0.020	0.128	332	
		Parallel 2:1	NON	125	2.391	15.221	1.913	12.177	1.530	9.742	0.957	6.089	0.479	3.045	332	
			NON	250	4.346	27.675	3.477	22.140	2.782	17.712	1.739	11.070	0.870	5.535	332	
		Inline shaft coupling 1:1	1:3	83	1.525	9.712	1.220	7.768	0.976	6.215	0.610	3.885	0.305	1.942	332	
			1:5	50	0.915	5.826	0.732	4.661	0.585	3.729	0.366	2.331	0.183	1.165	332	
			1:10	25	0.457	2.914	0.366	2.331	0.293	1.865	0.184	1.165	0.092	0.583	332	
			1:20	13	0.229	1.457	0.183	1.166	0.147	0.933	0.092	0.583	0.046	0.292	332	
			1:50	5	0.091	0.583	0.073	0.466	0.059	0.373	0.037	0.233	0.018	0.117	332	
EMB30-25	25	Parallel 1:1	NON	625	7.650	48.707	4.781	30.442	2.391	15.220	0.952	6.088	0.476	3.044	830	
			1:3	208	2.684	17.090	1.678	10.681	0.839	5.340	0.334	2.136	0.167	1.068	830	
			1:5	125	1.611	10.254	1.006	6.409	0.503	3.204	0.200	1.281	0.100	0.641	830	
			1:10	63	0.805	5.127	0.503	3.204	0.252	1.602	0.100	0.641	0.050	0.320	830	
			1:20	31	0.403	2.564	0.252	1.602	0.126	0.801	0.050	0.321	0.025	0.160	830	
			1:50	13	0.161	1.025	0.100	0.641	0.050	0.320	0.020	0.128	0.010	0.064	830	
		Parallel 2:1	NON	313	3.825	24.354	2.391	15.221	1.196	7.610	0.476	3.044	0.238	1.522	830	
			NON	625	6.955	44.279	4.346	27.675	2.174	13.836	0.865	5.535	0.433	2.767	830	
		Inline shaft coupling 1:1	1:3	208	2.440	15.536	1.525	9.710	0.763	4.855	0.304	1.942	0.152	0.971	830	
			1:5	125	1.465	9.322	0.915	5.826	0.457	2.913	0.182	1.165	0.091	0.583	830	
			1:10	63	0.732	4.661	0.457	2.913	0.229	1.456	0.091	0.583	0.045	0.291	830	
			1:20	31	0.366	2.331	0.229	1.456	0.115	0.728	0.045	0.292	0.023	0.145	830	
			1:50	13	0.146	0.932	0.091	0.583	0.045	0.291	0.018	0.116	0.009	0.058	830	

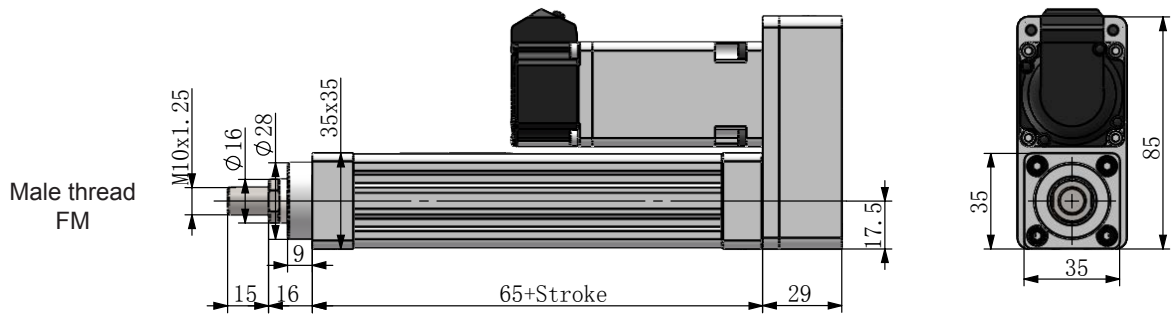


EMB05 Overall Dimension:

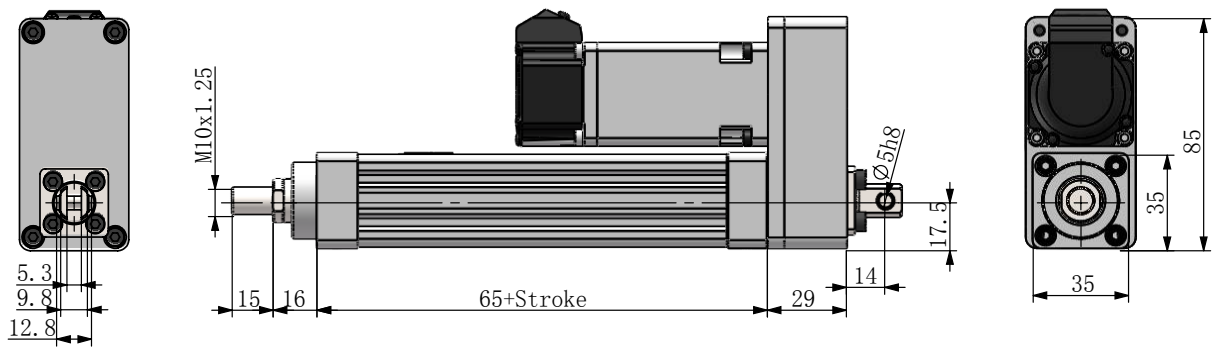
Front Attachment



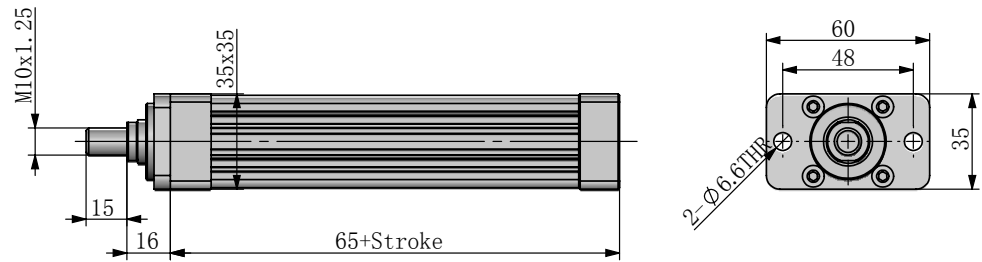
EMB05 Parallel dimension-P10,P20



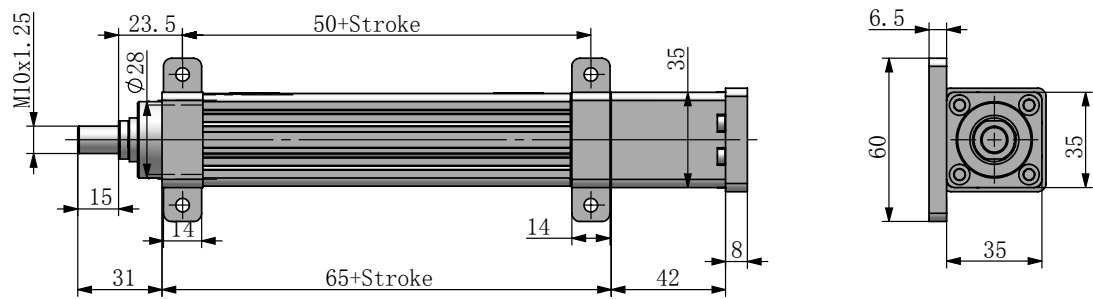
EMB05 Rear clevis mounting-RC



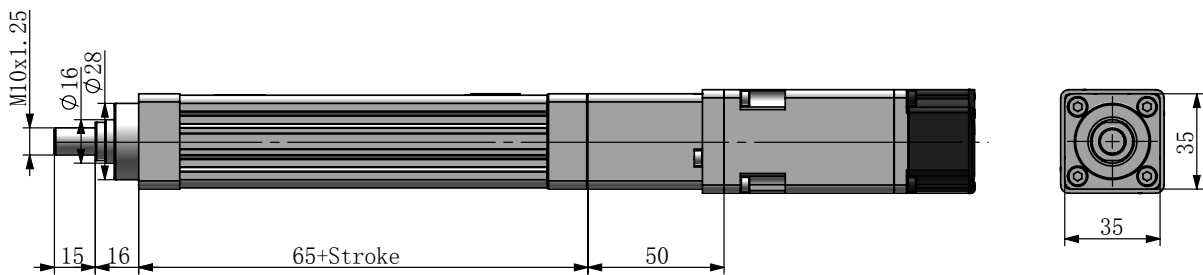
EMB05 Front flange mounting-FF



EMB05 Side flange mounting-SF

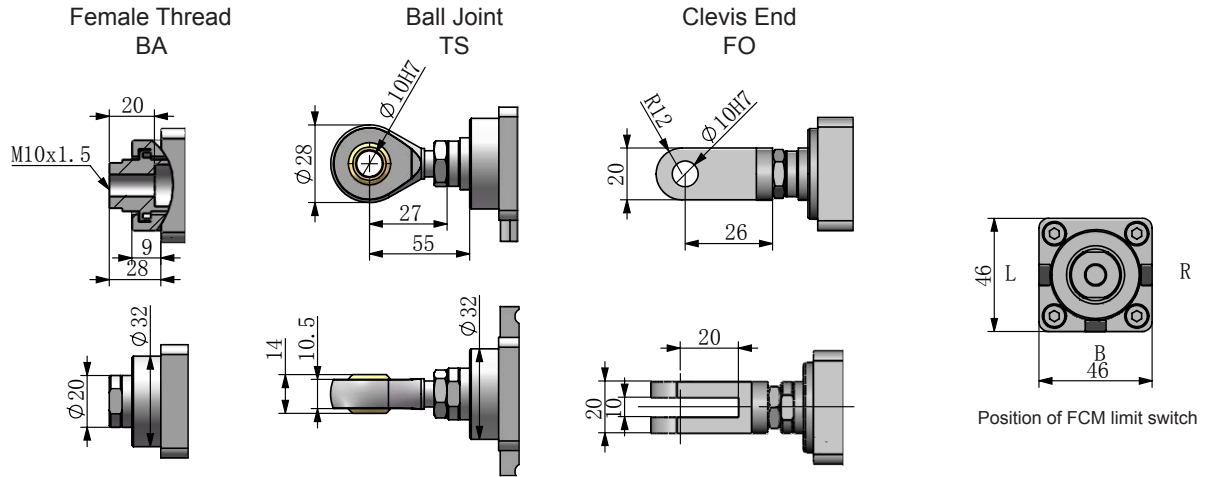


EMB05 Inline dimension-SC

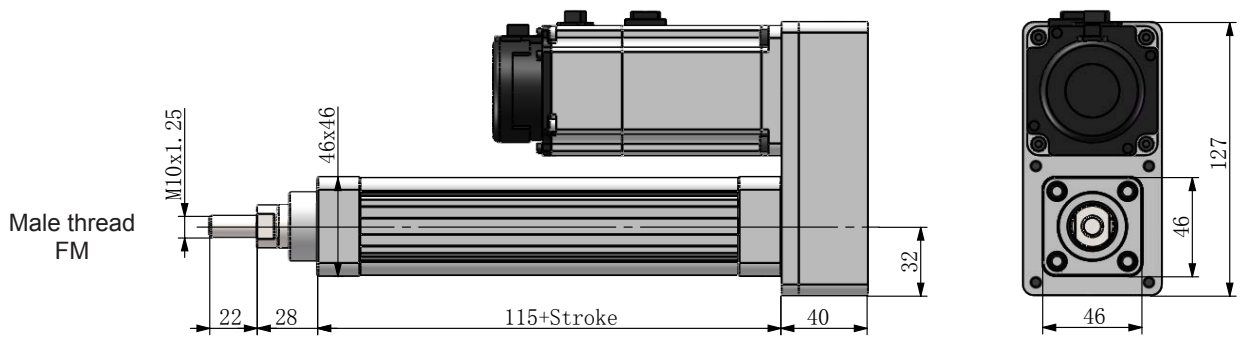


EMB10 Overall Dimension:

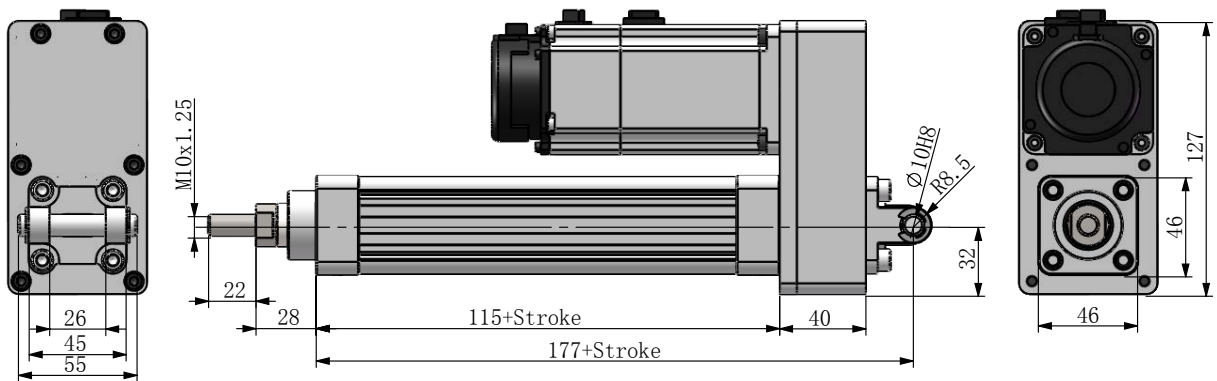
Front Attachment



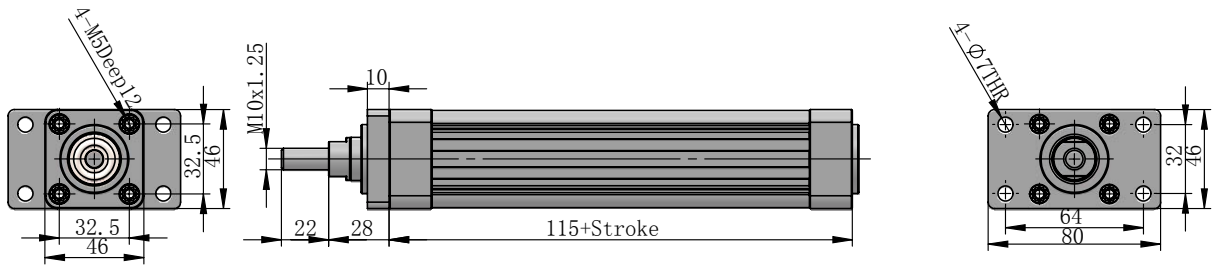
EMB10 Parallel dimension-P10,P20



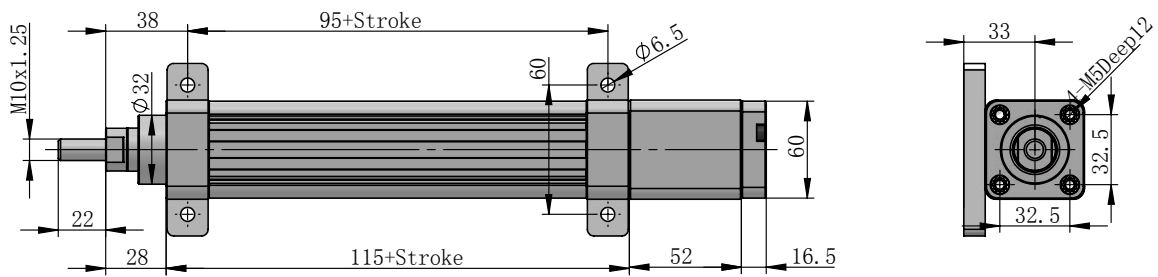
EMB10 Rear clevis mounting-RC



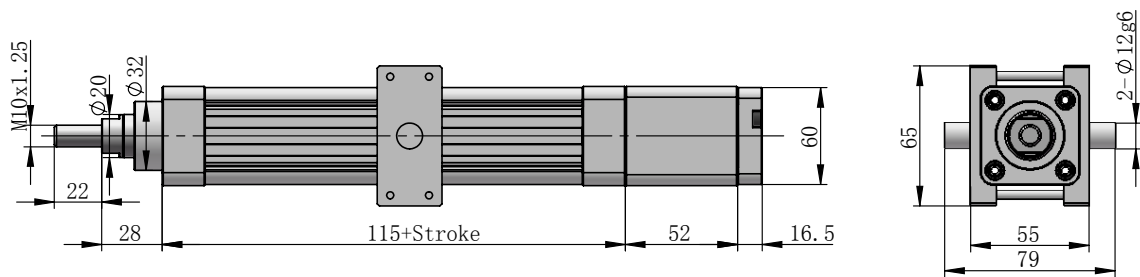
EMB10 Front flange mounting-FF



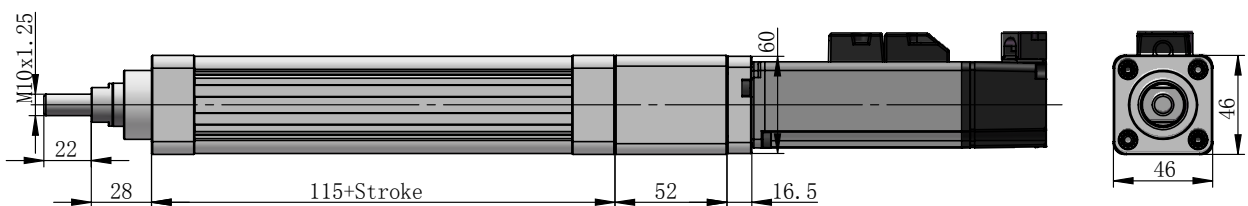
EMB10 Side flange mounting-SF



EMB10 Trunnion mounting-ST

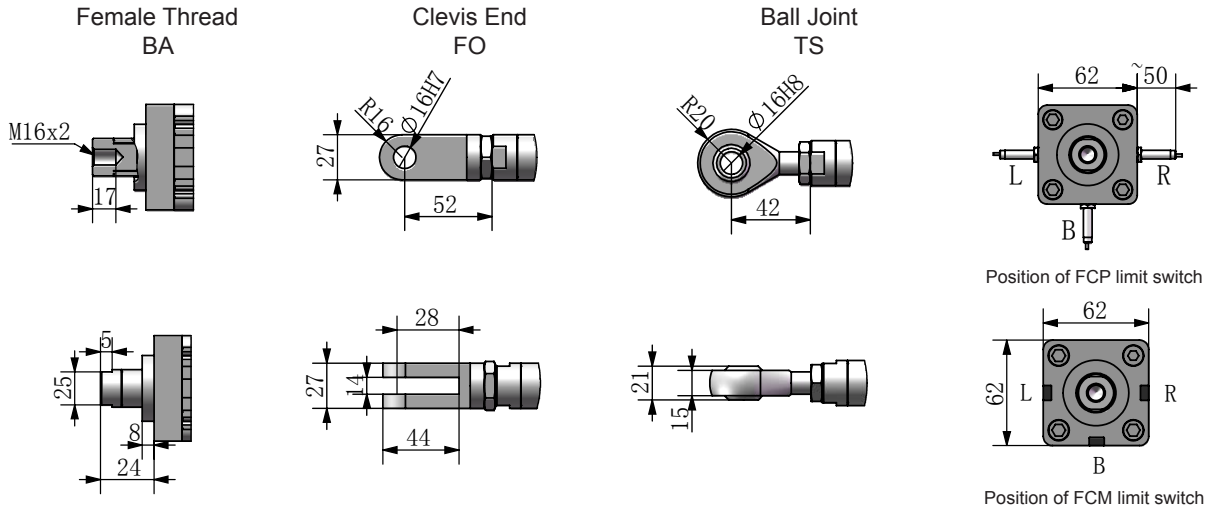


EMB10 Inline dimension-SC

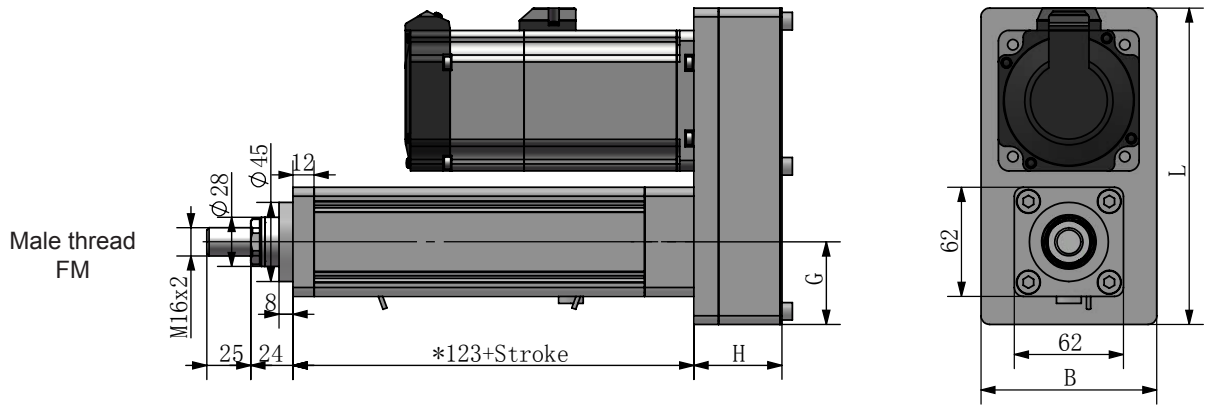


EMB20 Overall Dimension:

Front Attachment



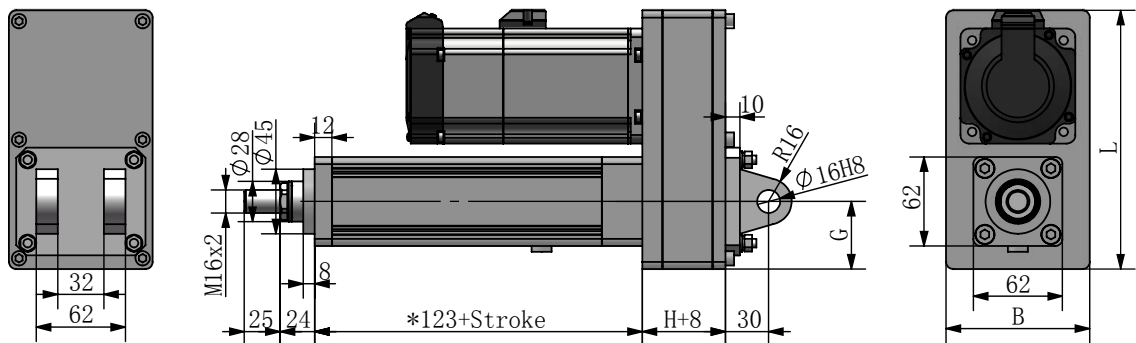
EMB20 Parallel dimension-P10,P20



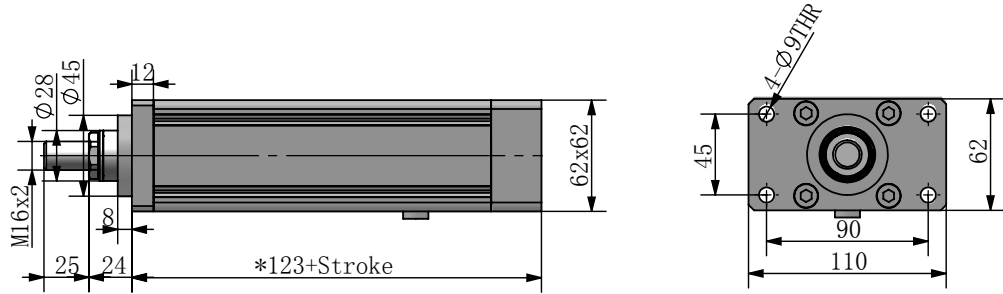
Power	H	L	B	G
Lower than 750W	48	190	106	50
750W-1.5KW	65	265	150	71

The dimension in above table is for reference only, the dimension will be different depends on different motor manufacturer.

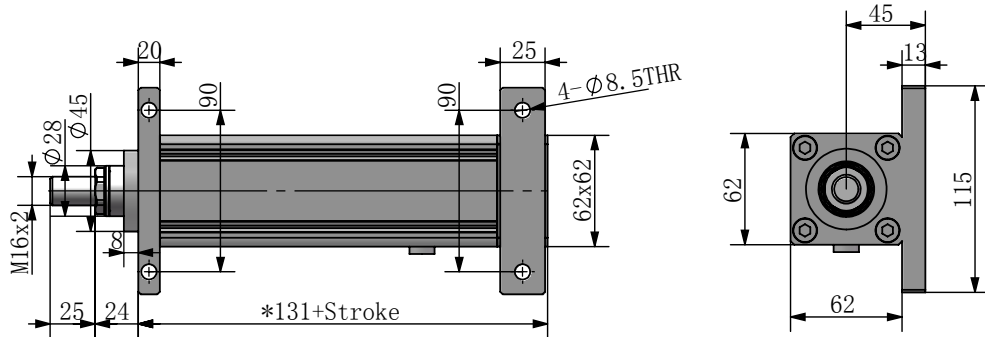
EMB20 Rear clevis mounting-RC



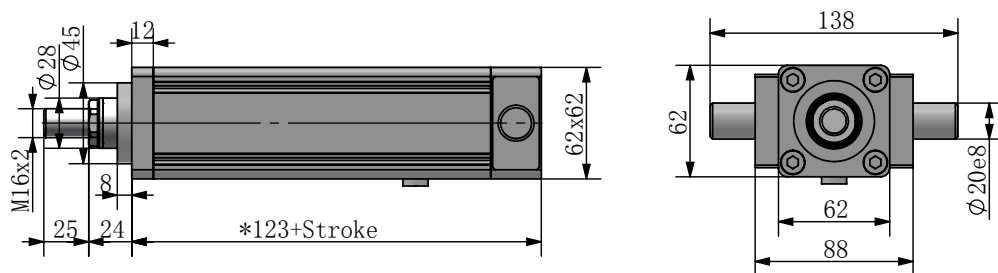
EMB20 Front flange mounting-FF



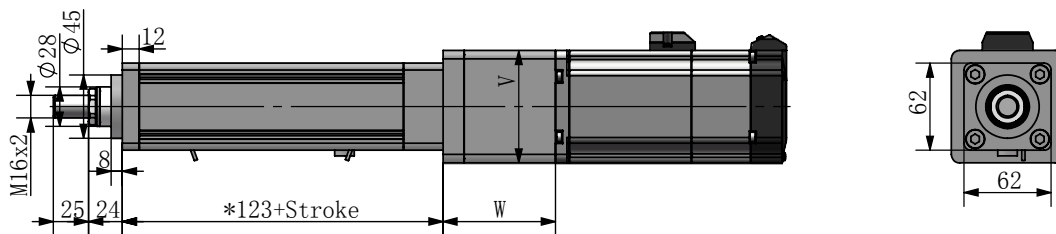
EMB20 Side flange mounting-SF



EMB20 Trunnion mounting-ST



EMB20 Inline dimension-SC

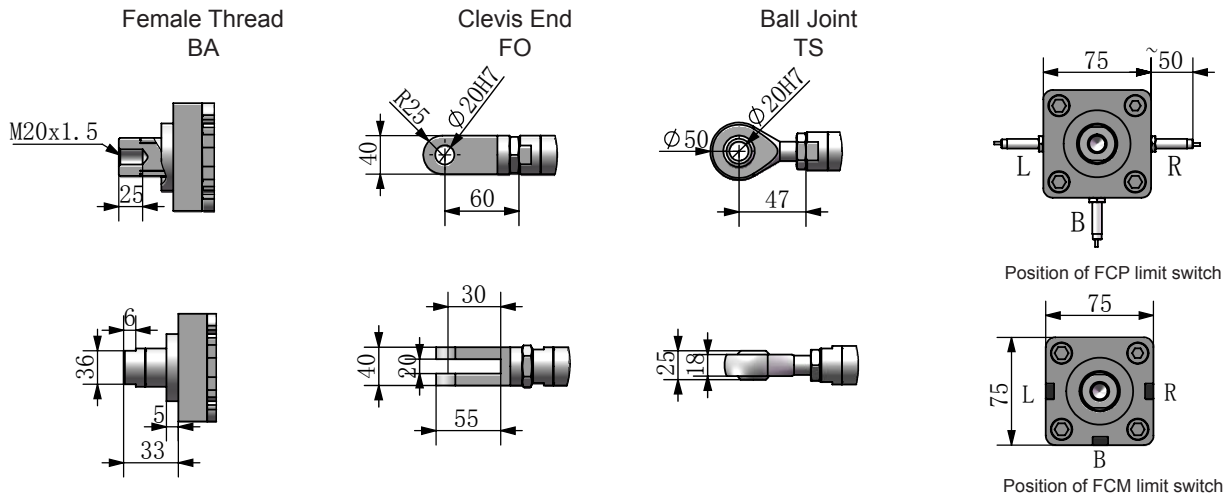


Power	Lower than 750W	750W-1.5KW			
Size	Ratio	1:1	3~10:1	1:1	3~10:1
W		83.6	160.6	90.5	194
V		80	80	100	100

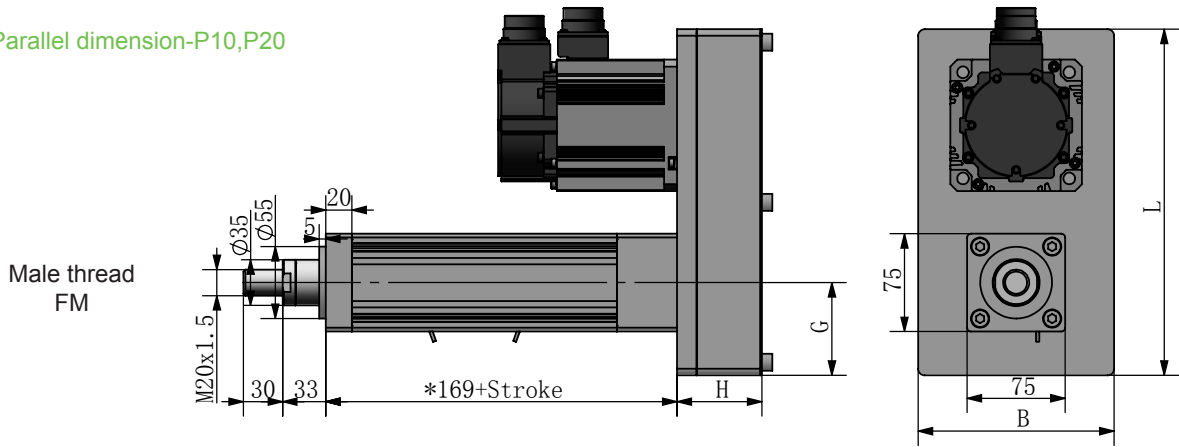
The dimension in above table is for reference only, the dimension will be different depends on different motor manufacturer.

EMB30 Overall Dimension:

Front Attachment

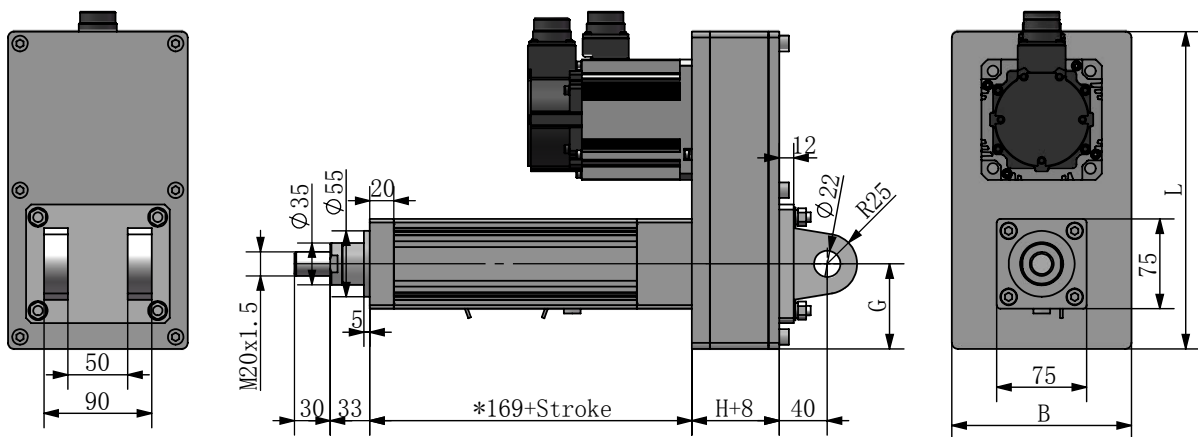


EMB30 Parallel dimension-P10,P20



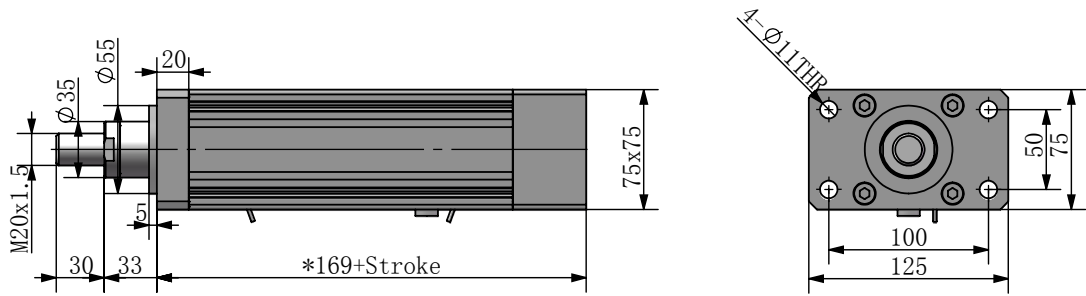
The dimension in above table is for reference only, the dimension will be different depends on different motor manufacturer.

EMB30 Rear clevis mounting-RC

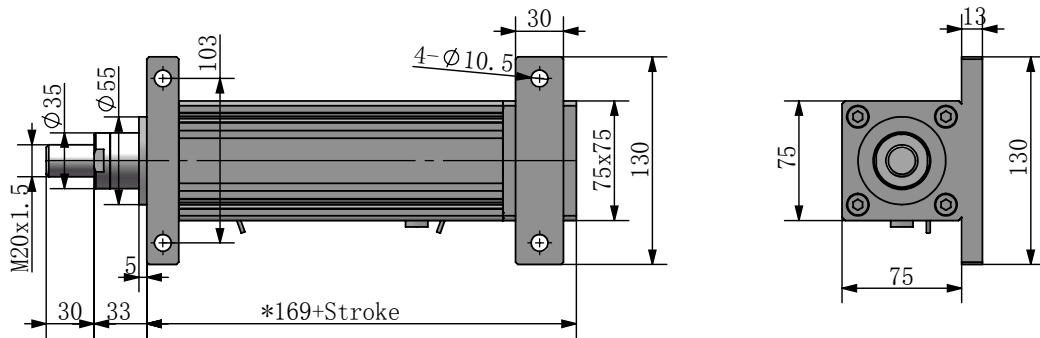


Unit: mm; * indicates that the length is 169 mm when the lead is 5 mm, the length is 189 mm when lead is 10 mm.

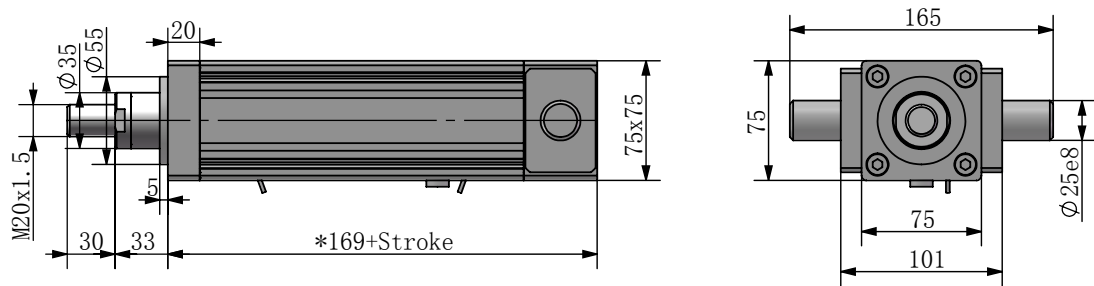
EMB30 Front flange mounting-FF



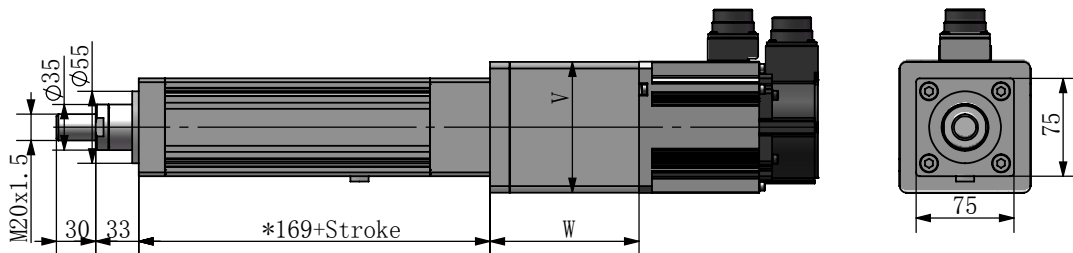
EMB30 Side flange mounting-SF



EMB30 Trunnion mounting-ST



EMB30 Inline dimension-SC



Power Size	Ratio	Lower than 3KW		4KW-5KW	
		1:1	3~10:1	1:1	3~10:1
W		132	109.5	187	119.5
V		130	120	180	130

The dimension in above table is for reference only, the dimension will be different depends on different motor manufacturer.

Lim-Tec[®]

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