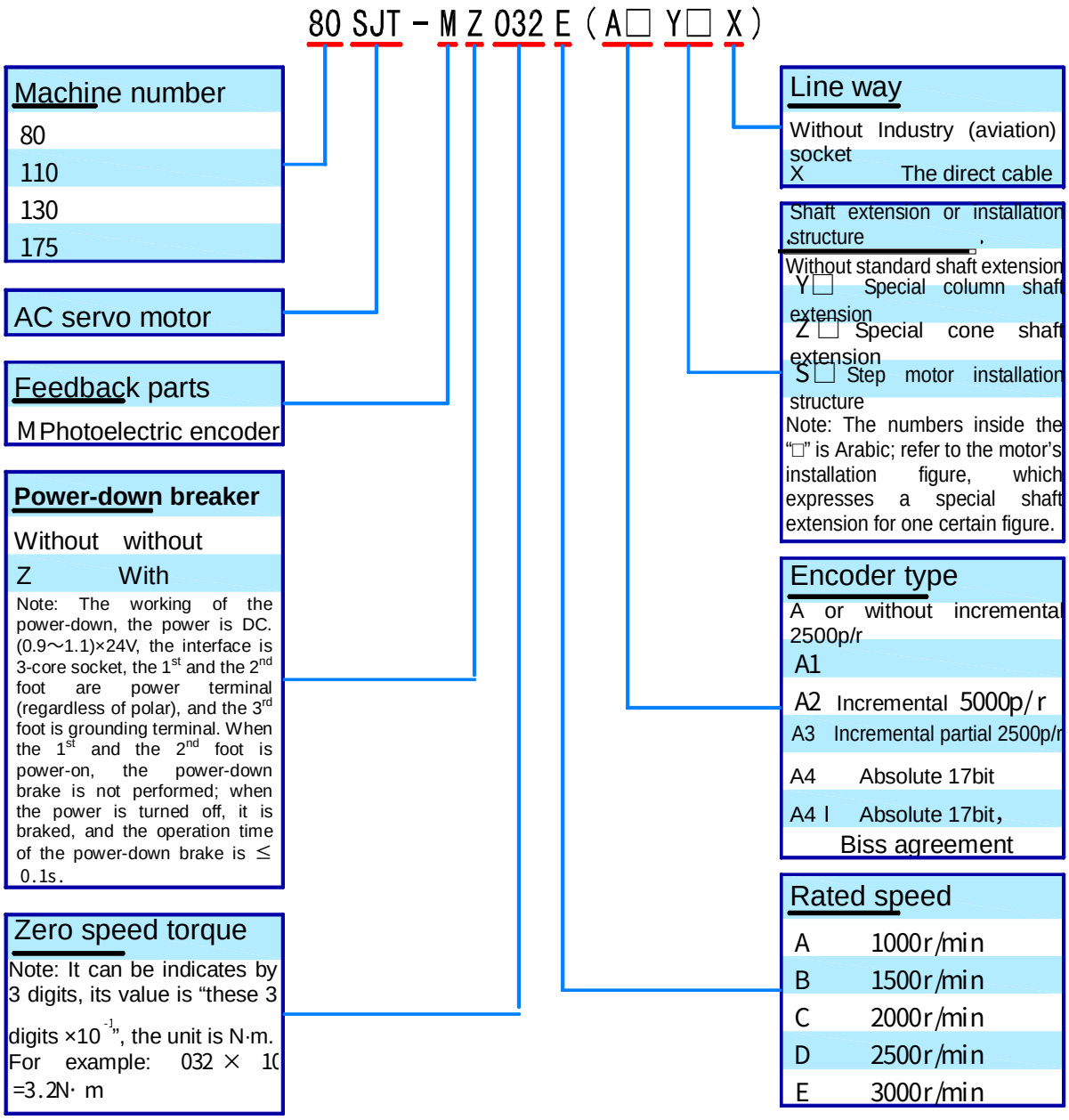
GSK SJT SERIES AC SERVO MOTOR
(The following picture is used for cover)

SJT series AC servo motor

1. The type explanation for the motor

For example:



2. Product characters:

- It adopts full-closed structure; its appearance is beautiful and its structure is compact.
- It adopts optimized electromagnetism design; the electromagnetic noise is low; and it owns good operation and high efficiency.
- It adopts rare earth permanent magnet material with high-capacity, the low speed character and strong overload capacity.
- It adopts high-speed, high accuracy photoelectric encoder, which can be

performed the high accuracy speed and position control matching with the high-capacity drive unit.

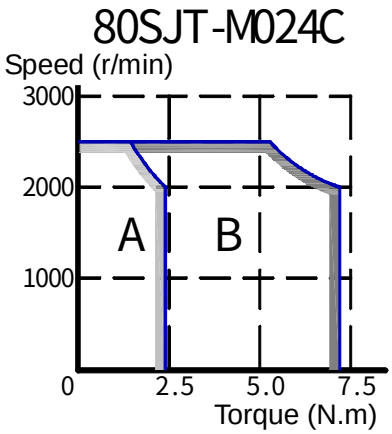
- It adopts IP65 defense level, and ensure that the motor can be used based on the ambient temperature -15℃～40℃ and in the dust and oil mist.
- It adopts high accuracy bearing and rotor high accuracy dynamic balance technology, and ensure that the motor is stable reliable, less vibration and low noise when the motor is operated within the top speed.
- It owns high-speed torque inertia ratio and strong rapid response capacity.
- Some motors are use the F level insulation structure, long life-span and high performance-cost ratio.

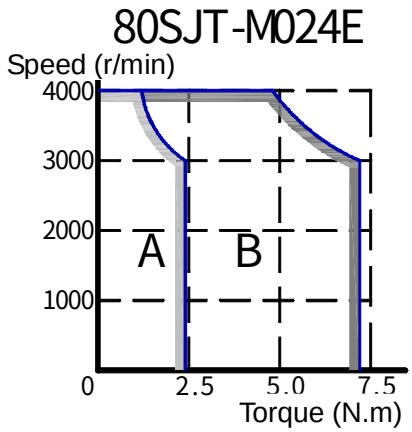
3. Product technical parameters

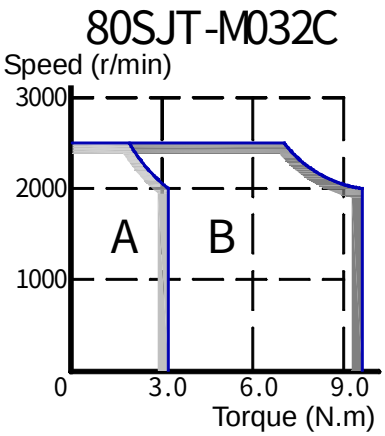
1. 80SJT series motor technical parameters

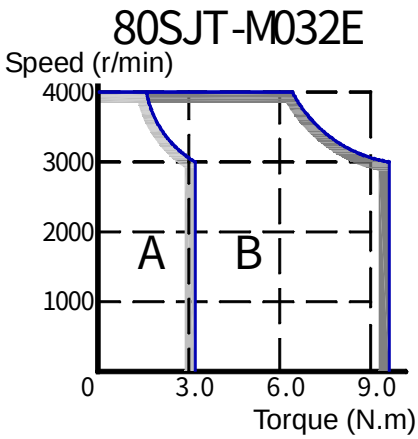
Type / Item	80SJT-M024C	80SJT-M024E	80SJT-M032C	80SJT-M032E
Rated power (kW)	0.5	0.75	0.66	1.0
Pole logarithm	4			
Drive unit input voltage (V)	AC220 three phases (or single phase)			AC220 three phases
Rated current (A)	3	4.8	5	6.2
Zero speed (N.m)	2.4	2.4	3.2	3.2
Rated torque (N.m)	2.4	2.4	3.2	3.2
The Max. torque (N.m)	7.2	7.2	9.6	9.6
Rated speed (r/min)	2000	3000	2000	3000
The Max. speed (r/min)	2500	4000	2500	4000
Moment of inertia ($kg{\cdot}m^2$)	0.83×10^{-4}	0.83×10^{-4}	1.23×10^{-4}	1.23×10^{-4}
Weight (kg)	3.1	3.2	3.7	3.8
Insulation level	F（GB 755—2008）			
Vibration level	R（GB 10068—2008）			
Defense level	IP65（GB 4208—2008/IEC 60529：2001，GB/T 4942.1—2006）			
Installation type	IMB5 (Flange installation) (GB/T 997—2008 / IEC 60034-7:2001)			
Working system	S1 (Serial working system) (GB 755—2008)			
Encoder resolution (p/r)	Incremental 2500 (standard configuration)			
Power-down brake	Temporarily no			

Torque – speed character figure (T – M) (A: serial working area; B: short-term working area)







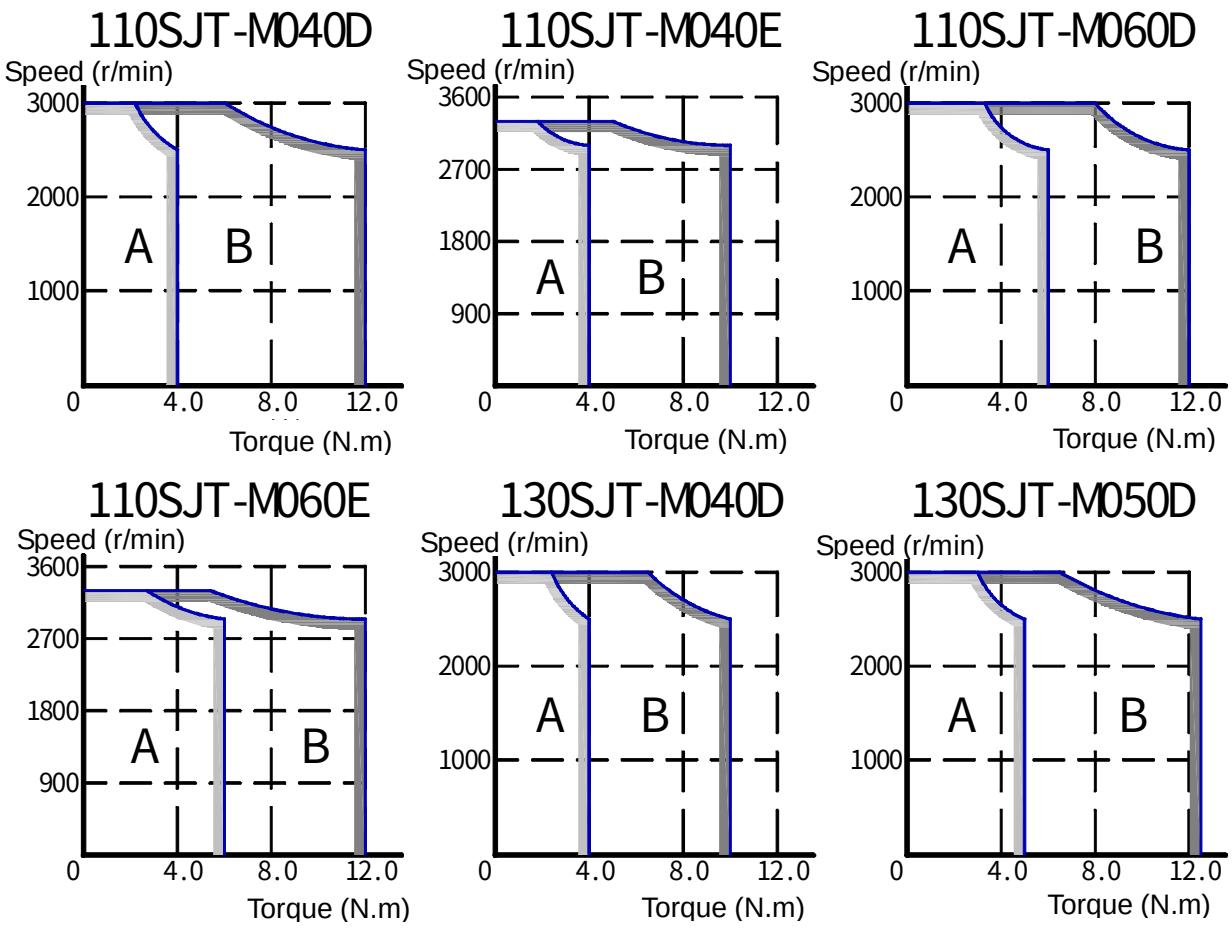


2. 110SJT series, 130SJT series motor technical parameter (1)

Item \ Type	110SJT-M040D	110SJT-M040E	110SJT-M060D	110SJT-M060E	130SJT-M040D	130SJT-M050D
Rated power (kW)	1.0	1.2	1.5	1.8	1.0	1.3
Pole logarithm	4					
Drive unit input voltage (V)	AC220 three-phase (or single phase)	AC220 three phases				
Rated current (A)	4.5	5	7	8	4	5
Zero speed torque (N.m)	4	4	6	6	4	5
Rated torque (N.m)	4	4	6	6	4	5
The Max. torque (N.m)	12	10	12	12	10	12.5
Rated speed (r/min)	2500	3000	2500	3000	2500	2500
The Max. speed (r/min)	3000	3300	3000	3300	3000	3000
Moment of inertia ($kg{\cdot}m^2$)	0.68×10^{-3}	0.68×10^{-3}	0.95×10^{-3}	0.95×10^{-3}	1.1×10^{-3}	1.1×10^{-3}
Weight (kg)	6.1	6.1	7.9	7.9	6.5	6.5
Insulation level	B（GB 755—2008）					
Vibration level	R（GB 10068—2008）					
Defense level	IP65（GB 4208—2008/IEC 60529：2001, GB/T 4942.1—2006）					
Installation type	IMB5 (Flange installation) (GB/T 997—2008 / IEC 60034-7:2001)					

Working system	S1 (Serial working system) (GB 755—2008)	
Encoder resolution (p/r)	Incremental 2500 (Standard configuration)	
Power-down brake	DC24V, 4N·m, The corresponding motor's weight adds to 1.6kg.	DC24V, 12N·m, The corresponding motor's weight adds to 2.9kg.

Torque – speed character figure (T – M) (A: serial working area; B: short-term working area)

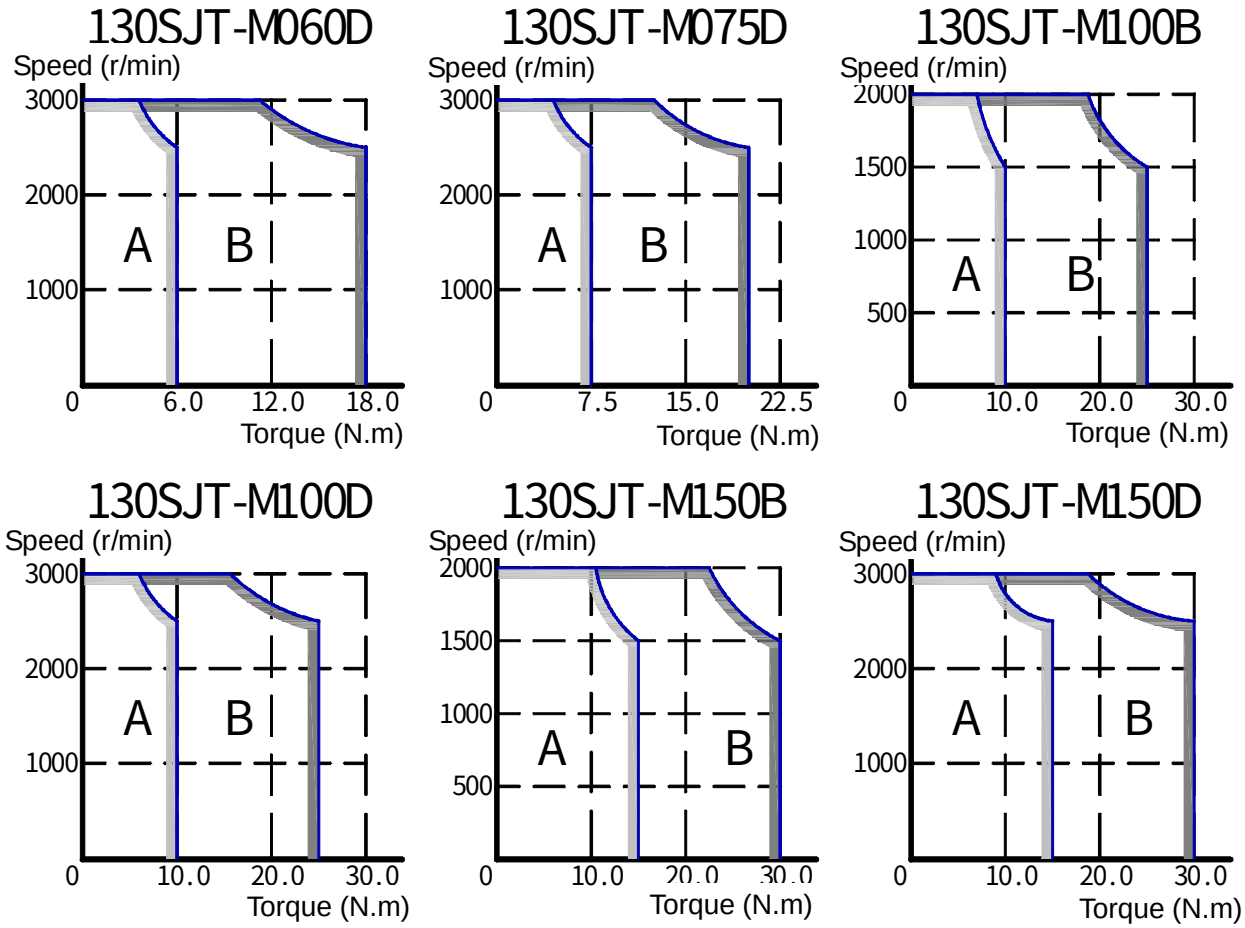


3. 110SJT series, 130SJT series motor technical parameter (2)

Type / Item	130SJT-M060D	130SJT-M075D	130SJT-M100B	130SJT-M100D	130SJT-M150B	130SJT-M150D
Rated power (kW)	1.5	1.88	1.5	2.5	2.3	3.9
Pole logarithm	4					
Drive unit input voltage (V)	AC220 three phases					
Rated current (A)	6	7.5	6	10	8.5	14.5
Zero speed torque (N.m)	6	7.5	10	10	15	15
Rated torque (N.m)	6	7.5	10	10	15	15
The Max. torque (N.m)	18	20	25	25	30	30
Rated speed (r/min)	2500	2500	1500	2500	1500	2500
The Max. speed (r/min)	3000	3000	2000	3000	2000	3000
Moment of inertia ($kg·m^2$)	1.33×10^{-3}	1.85×10^{-3}	2.42×10^{-3}	2.42×10^{-3}	3.1×10^{-3}	3.6×10^{-3}
Weight (kg)	7.2	8.1	9.6	9.7	11.9	12.7

Insulation level	B（GB 755—2008）
Vibration level	R（GB 10068—2008）
Defense level	IP65（GB 4208—2008/IEC 60529：2001，GB/T 4942.1—2006）
Installation type	IMB5 (Flange installation) (GB/T 997—2008 / IEC 60034-7:2001)
Working system	S1 (serial working system) (GB 755—2008)
Encoder resolution (p/r)	Incremental 2500 (Standard configuration)
Power-down brake	DC24V, 12N·m, the weight of the corresponding motor adds to 2.9kg.

Torque – speed character figure (T – M) (A: serial working area; B: short-term working area)

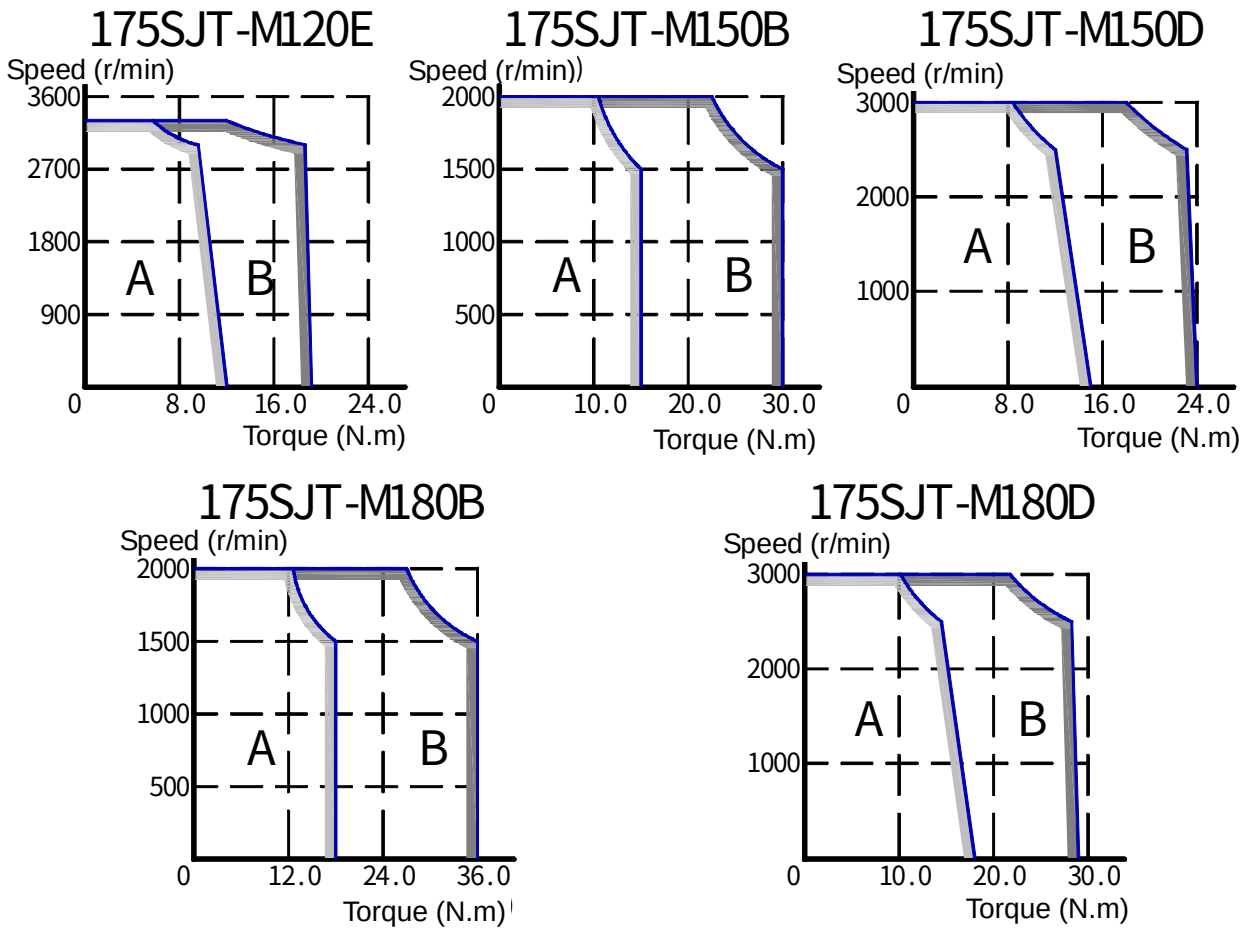


4. 175SJT series motor technical parameter (1)

Type / Item	175SJT-M 120E	175SJT-M 150B	175SJT-M 150D	175SJT-M 180B	175SJT-M 180D
Rated power (kW)	3	2.4	3.1	2.8	3.8
Pole logarithm	3				
Drive unit input voltage (V)	AC220 three phases				
Rated current (A)	13	11	14	15	16.5
Zero speed torque (N.m)	12	15	15	18	18
Rated torque (N.m)	9.6	15	12	18	14.5
The Max. torque (N.m)	19.2	30	24	36	29
Rated speed (r/min)	3000	1500	2500	1500	2500
The Max. speed (r/min)	3300	2000	3000	2000	3000
Moment of inertia	5.1×10^{-3}	5.1×10^{-3}	5.1×10^{-3}	6.5×10^{-3}	6.5×10^{-3}

(kg·m^2)					
Weight (kg)	18.9	18.5	19	22.8	22.9
Insulation level	F（GB 755—2008）				
Vibration level	R（GB 10068—2008）				
Defense level	IP65（GB 4208—2008/IEC 60529：2001，GB/T 4942.1—2006）				
Installation type	IMB5 (Flange installation) (GB/T 997—2008 / IEC 60034-7:2001)				
Working system	S1 (serial working system) (GB 755—2008)				
Encoder resolution (p/r)	Incremental 2500 (Standard configuration)				
Power-down brake	DC24V, 23N·m, the weight of the corresponding motor adds to 5.6kg.				

Torque – speed character figure (T – M) (A: serial working area; B: short-term working area)



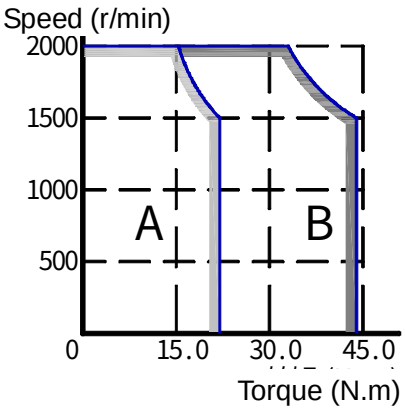
5. 175SJT series motor technical parameter (2)

Item \ Type	175SJT-M 220B	175SJT-M 220D	175SJT-M 300B	175SJT-M 300D	175SJT-M 380B
Rated power (kW)	3.5	4.5	4.7	6	6
Pole logarithm	3				
Drive unit input voltage (V)	AC220 three phases				
Rated current (A)	17.5	19	24	27.5	29
Zero speed (N.m)	22	22	30	30	38
Rated torque (N.m)	22	17.6	30	24	38
The Max. torque (N.m)	44	35.2	60	48	76
Rated speed (r/min)	1500	2500	1500	2500	1500

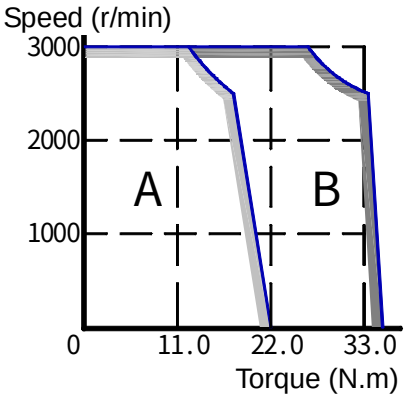
The Max. speed (r/min)	2000	3000	2000	3000	1800
Moment of inertia ($kg \cdot m^{2)}$	9.0×10^{-3}	9.0×10^{-3}	11.2×10^{-3}	11.2×10^{-3}	14.8×10^{-3}
Weight (kg)	28.9	29.2	34.3	34.4	42.4
Insulation level	F（GB 755—2008）				
Vibration level	R（GB 10068—2008）				
Defense level	IP65（GB 4208—2008/IEC 60529：2001，GB/T 4942.1—2006）				
Installation type	IMB5 (Flange installation) (GB/T 997—2008 / IEC 60034-7:2001)				
Working system	S1 (serial working system) (GB 755—2008)				
Encoder resolution (p/r)	Incremental 2500 (Standard configuration)				
Power-down brake	DC24V, 23N.m, the weight of the corresponding motor adds to 5.6kg.		DC24V, 46N·m, the weight of the corresponding motor adds to 7.7kg.		

Torque – speed character figure (T – M) (A: serial working area; B: short-term working area)

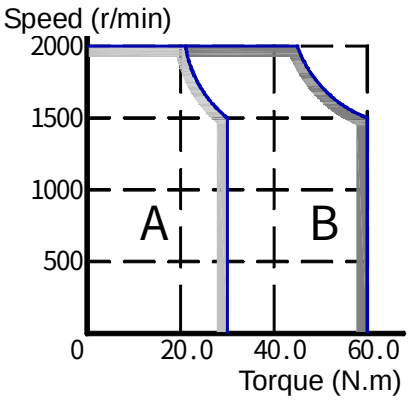
175SJT-M220B



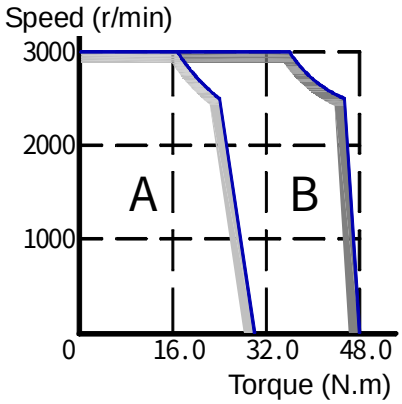
175SJT-M220D



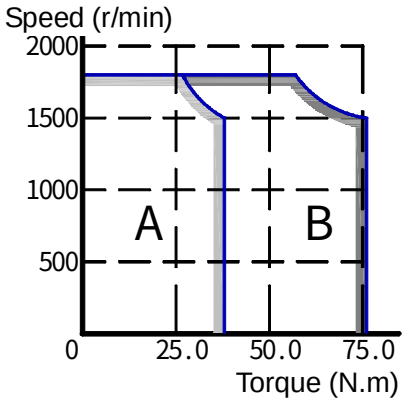
175SJT-M300B



175SJT-M300D



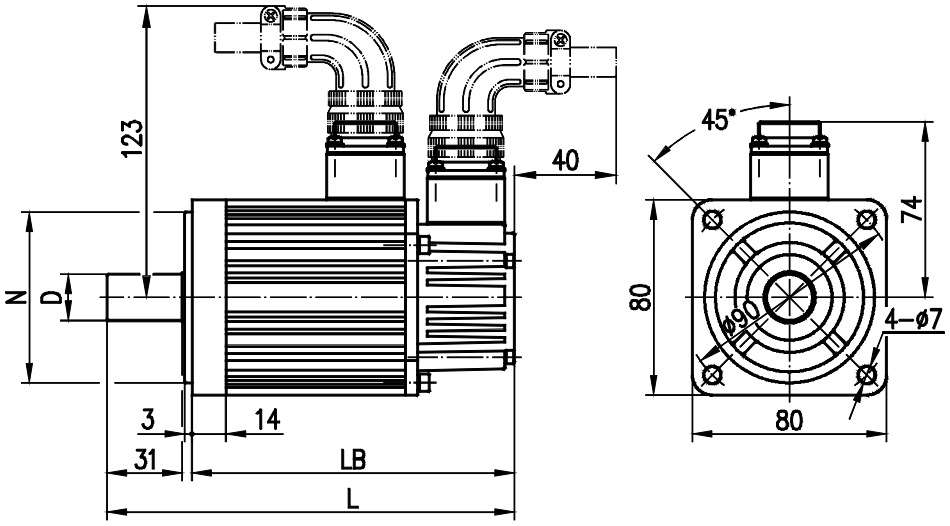
175SJT-M380B



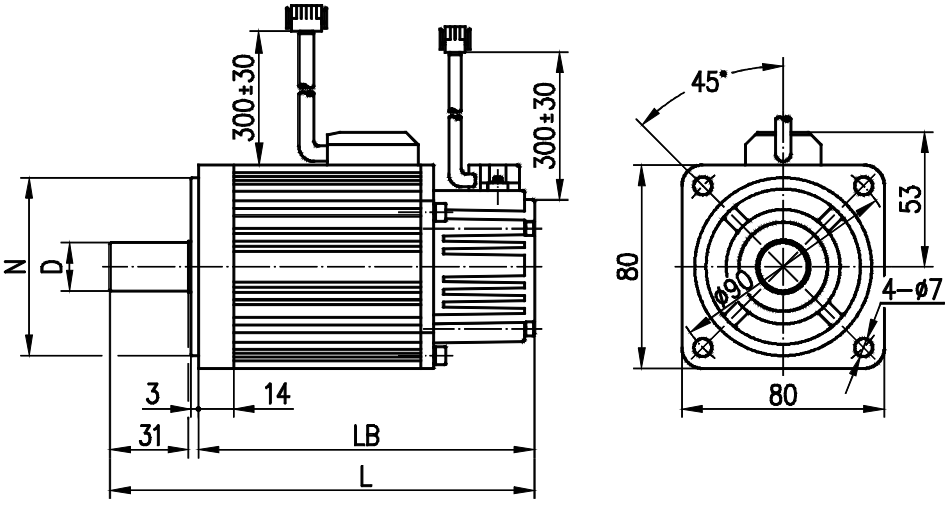
4. The installation dimension of the motor

1. The motor's installation dimension of the 80SJT series

Aviation socket →
(This socket is used in industry)

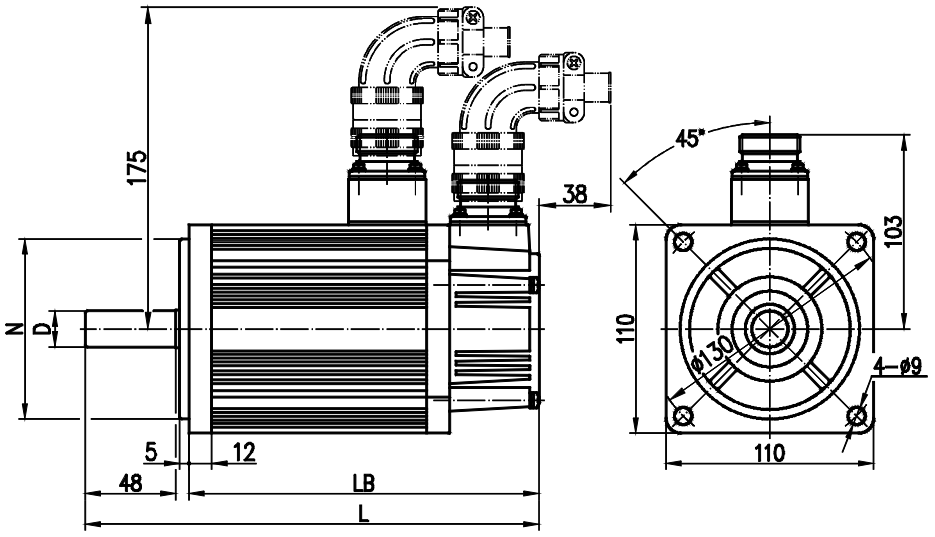


The direct-type of the cable →



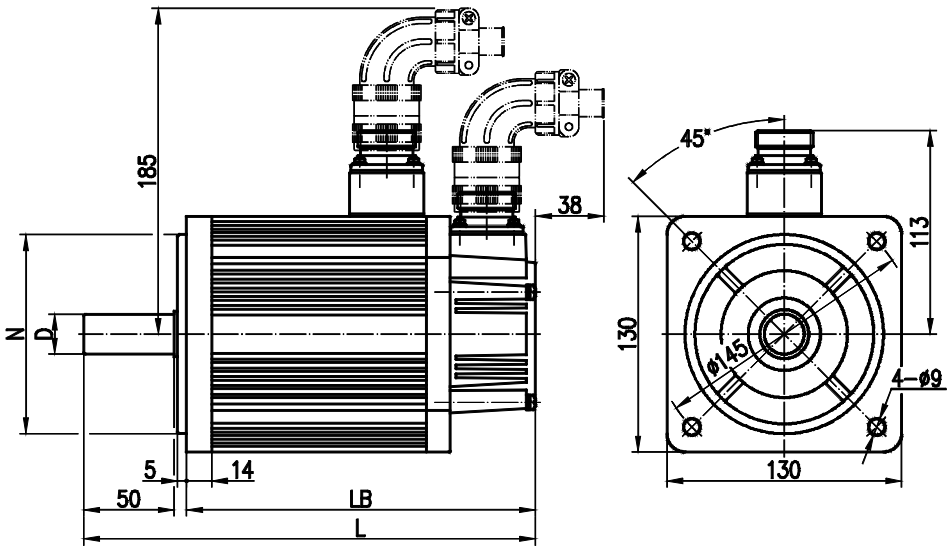
Type	D(mm)	N(mm)	LB(mm)	L(mm)
80SJT–M024C	$\varphi 19^{0}_{-0.013}$	$\varphi 70^{0}_{-0.03}$	171	206
80SJT–M024E	$\varphi 19^{0}_{-0.013}$	$\varphi 70^{0}_{-0.03}$	171	206
80SJT–M032C	$\varphi 19^{0}_{-0.013}$	$\varphi 70^{0}_{-0.03}$	189	224
80SJT–M032E	$\varphi 19^{0}_{-0.013}$	$\varphi 70^{0}_{-0.03}$	189	224

2. The motor’s installation dimension of the 110SJT series



Type	D(mm)	N(mm)	LB(mm)	L(mm)
110SJT–M040D	$\varphi 19^{0}_{-0.013}$	$\varphi 95^{0}_{-0.035}$	186 (237)	241 (292)
110SJT–M040E	$\varphi 19^{0}_{-0.013}$	$\varphi 95^{0}_{-0.035}$	186 (237)	241 (292)
110SJT–M060D	$\varphi 19^{0}_{-0.013}$	$\varphi 95^{0}_{-0.035}$	212 (263)	267 (318)
110SJT–M060E	$\varphi 19^{0}_{-0.013}$	$\varphi 95^{0}_{-0.035}$	212 (263)	267 (318)
Note: LB and L values inside the bracket are a length value of the motor of the corresponding the specification with the power-down brake.				

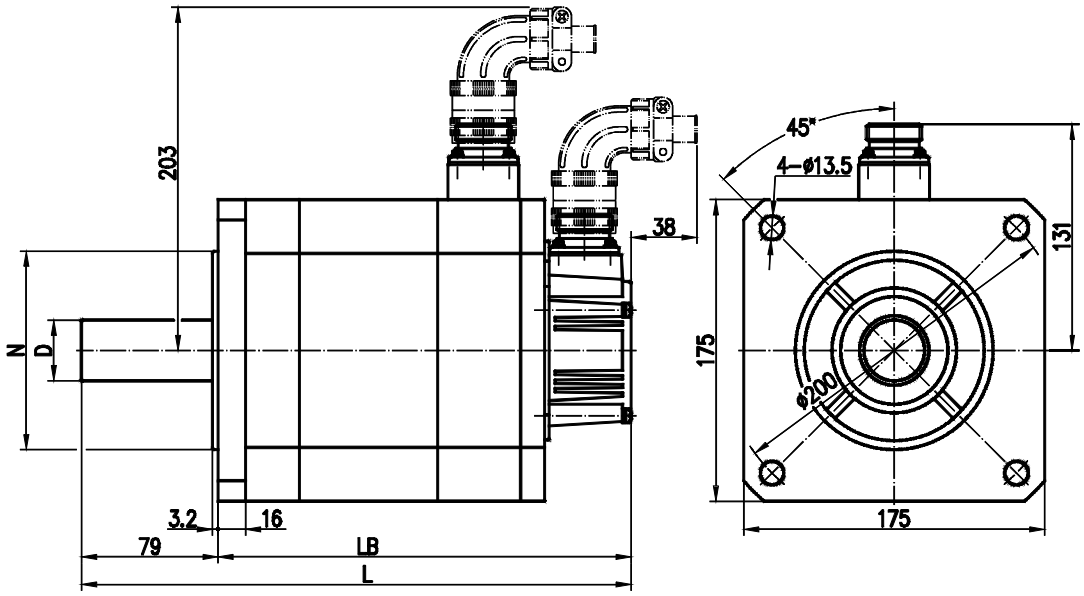
3. The installation dimension of the 130SJT series motor



Type	D(mm)	N(mm)	LB(mm)	L(mm)
130SJT–M040D	$\varphi 22^{0}_{-0.013}$	$\varphi 110^{0}_{-0.035}$	168 (227)	225 (284)
130SJT–M050D	$\varphi 22^{0}_{-0.013}$	$\varphi 110^{0}_{-0.035}$	168 (227)	225 (284)
130SJT–M060D	$\varphi 22^{0}_{-0.013}$	$\varphi 110^{0}_{-0.035}$	176 (235)	233 (292)
130SJT–M075D	$\varphi 22^{0}_{-0.013}$	$\varphi 110^{0}_{-0.035}$	188 (247)	245 (304)
130SJT–M100B	$\varphi 22^{0}_{-0.013}$	$\varphi 110^{0}_{-0.035}$	208 (267)	265 (324)
130SJT–M100D	$\varphi 22^{0}_{-0.013}$	$\varphi 110^{0}_{-0.035}$	208 (267)	265 (324)
130SJT–M150B	$\varphi 22^{0}_{-0.013}$	$\varphi 110^{0}_{-0.035}$	238 (297)	295 (354)
130SJT–M150D	$\varphi 22^{0}_{-0.013}$	$\varphi 110^{0}_{-0.035}$	248 (307)	305 (364)

Note: LB and L values inside the bracket are the length value of the motor of the corresponding specification with power-down brake.

4. The installation dimension of the 175SJT series motor



Type	D(mm)	N(mm)	LB(mm)	L(mm)
175SJT–M120E	$\varphi 35_{0}^{+0.01}$	$\varphi 114.3_{5}^{0}{}^{-0.02}$	224 (291)	303 (370)
175SJT–M150B	$\varphi 35_{0}^{+0.01}$	$\varphi 114.3_{5}^{0}{}^{-0.02}$	224 (291)	303 (370)
175SJT–M150D	$\varphi 35_{0}^{+0.01}$	$\varphi 114.3_{5}^{0}{}^{-0.02}$	224 (291)	303 (370)
175SJT–M180B	$\varphi 35_{0}^{+0.01}$	$\varphi 114.3_{5}^{0}{}^{-0.02}$	244 (311)	323 (390)
175SJT–M180D	$\varphi 35_{0}^{+0.01}$	$\varphi 114.3_{5}^{0}{}^{-0.02}$	244 (311)	323 (390)
175SJT–M220B	$\varphi 35_{0}^{+0.01}$	$\varphi 114.3_{5}^{0}{}^{-0.02}$	279 (346)	358 (425)
175SJT–M220D	$\varphi 35_{0}^{+0.01}$	$\varphi 114.3_{5}^{0}{}^{-0.02}$	279 (346)	358 (425)
175SJT–M300B	$\varphi 35_{0}^{+0.01}$	$\varphi 114.3_{5}^{0}{}^{-0.02}$	309 (382)	388 (461)
175SJT–M300D	$\varphi 35_{0}^{+0.01}$	$\varphi 114.3_{5}^{0}{}^{-0.02}$	309 (382)	388 (461)
175SJT–M380B	$\varphi 35_{0}^{+0.01}$	$\varphi 114.3_{5}^{0}{}^{-0.02}$	359 (432)	438 (511)
Note: LB and L values inside the bracket are the length value of the motor of the corresponding specification with the power-down brake.				

Additional: The corresponding motor picture is placed on the upper right of the each technical parameter table: 80SJT series corresponds to the old version (Apr. 2009) of the 1st picture at the 1st page; 110SJT series corresponds to the old version (Apr. 2009) of the 3rd picture at the 1st page; 130SJT series corresponds to the old version (Apr. 2009) of the 1st picture at the 2nd page; 175 SJT series is used the following picture.