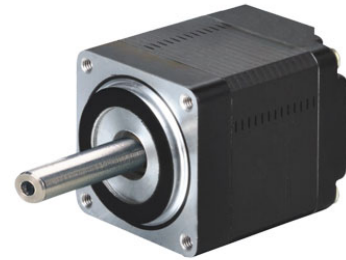


## 8HY Series

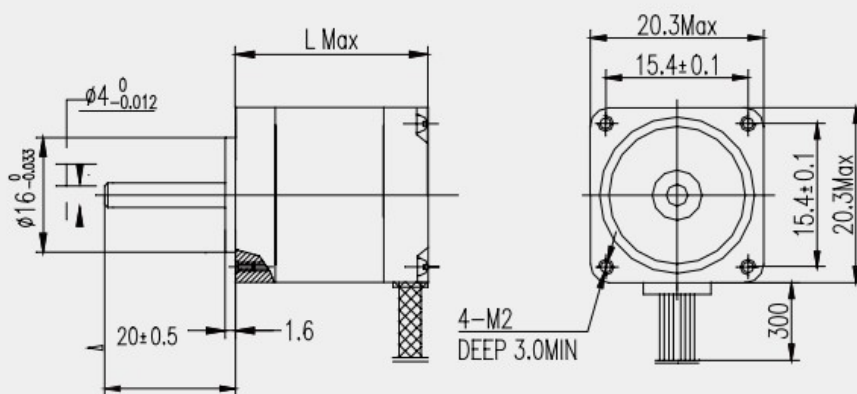
Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$ ;  
 Temperature rise:  $80^{\circ}\text{C}$  Max;  
 Insulation resistance: 100M $\Omega$  Min.50V DC;  
 Dielectric Strength: 500V AC 1minute  
 Insulation class: B.



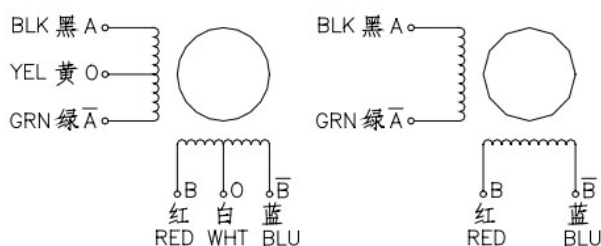
8HY001-2, 8HY002-2

Code	Step angle	Motor length (mm)	Rated current (A)	Resistance per phase ( $\Omega$ )	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Lead Wire	Motor weight (g)
8HY2402	1.8	28	0.2	23	8.2	1.4	0.2	2.5	4	50
8HY2406	1.8	28	0.6	3.2	0.9	1.4	0.2	2.5	4	50
8HY3402	1.8	34	0.2	25	8.4	1.8	0.3	3.2	4	70
8HY3406	1.8	34	0.6	4.5	1.2	1.8	0.3	3.2	4	70
8HY4402	1.8	40	0.2	32	8.8	2.6	0.5	4.5	4	82
8HY4406	1.8	40	0.6	5.8	1.6	2.6	0.5	4.5	4	82

### Dimensions



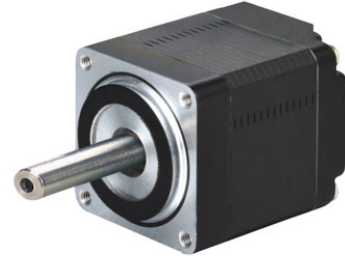
### Wiring Diagram



\*We can manufacture products according to customer's requirement

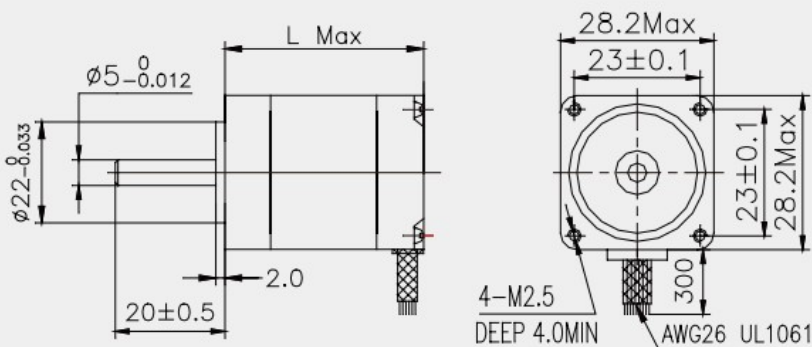
## 11HY Series

Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$ ;  
 Temperature rise:  $80^{\circ}\text{C}$  Max;  
 Insulation resistance: 100M $\Omega$  Min.50V DC;  
 Dielectric Strength: 500V AC 1minute  
 Insulation class: B.

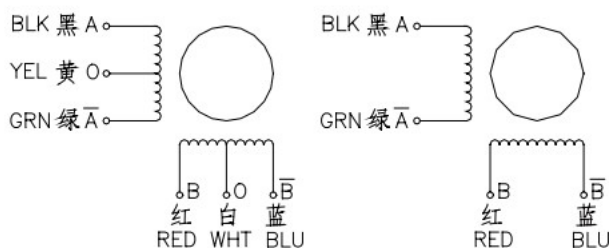


Code	Step angle	Motor length (mm)	Rated current (A)	Resistance per phase ( $\Omega$ )	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Lead Wire	Motor weight (g)
11HY2406	1.8	28	0.6	4.2	2.2	4.5	0.3	6	4	105
11HY24035	1.8	28	0.35	12	5.8	4.5	0.3	6	4	105
11HY3406	1.8	33	0.6	5.5	3.2	6.0	0.4	8	4	110
11HY34035	1.8	33	0.35	15	9.2	6.0	0.4	8	4	110
11HY4406	1.8	41	0.6	7.0	6.0	6.0	0.5	11	4	140
11HY44035	1.8	41	0.35	20	15	6.0	0.5	11	4	140
11HY2406	1.8	28	0.6	4.2	2.2	4.5	0.3	6	4	105
11HY24035	1.8	28	0.35	12	5.8	4.5	0.3	6	4	105

### Dimensions



### Wiring Diagram



\*We can manufacture products according to customer's requirement.

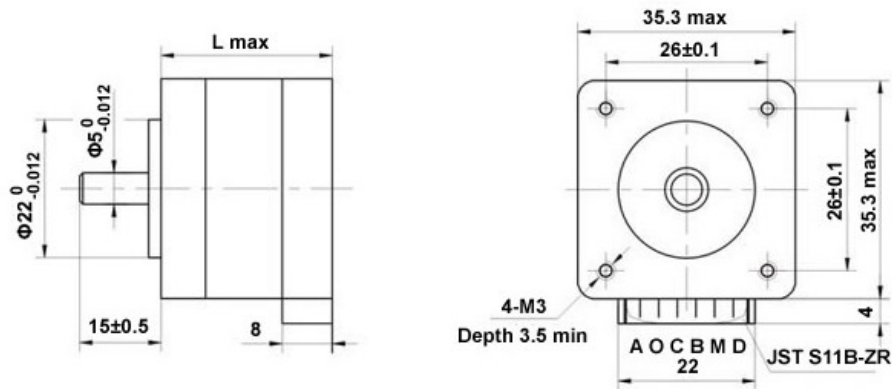
## 14HA Series

Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-10^{\circ}\text{C}$ - $+40^{\circ}\text{C}$ ;  
 Temperature rise: 85K;  
 Insulation resistance: 100Mohm min 500V DC;  
 Insulation class: B.

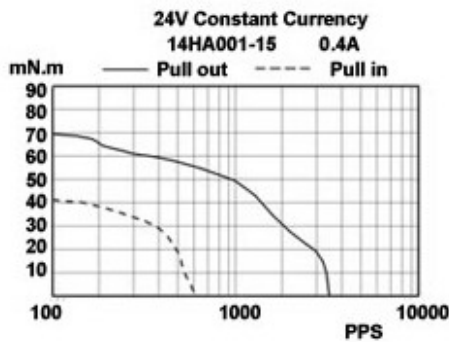


14HA001-15, 14HA005-15

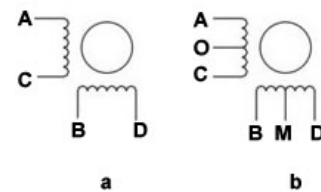
### Figure Dimensions



### Pulse-torque characteristics



### Wiring Diagram



Code	Step angle	Rated current (A)	Resistance per phase ( $\Omega$ )	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Wiring diagram	Motor mass (g)	Motor length "L"
14HA001-15	0.9°	0.40	20	18	80	12	10	a	0.16	28
14HA005-15	0.9°	0.16	30	26	50	12	10	b	0.16	28

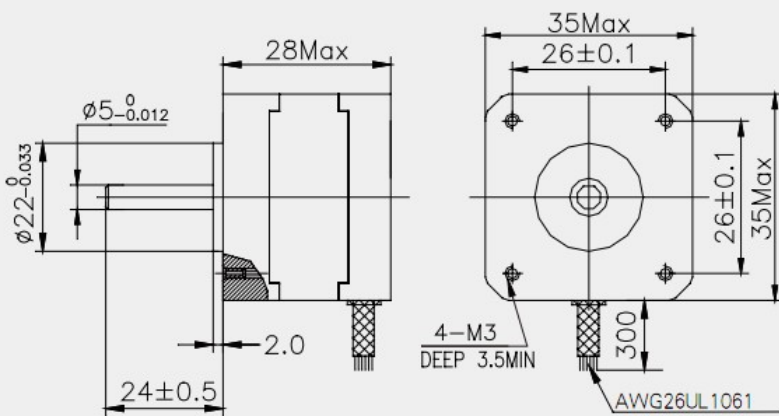
## 14HM Series

Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$ ;  
 Temperature rise:  $80^{\circ}\text{C}$  Max;  
 Insulation resistance:  $100\text{M}\Omega$  Min.50V DC;  
 Dielectric Strength: 500V AC 1minute  
 Insulation class: B

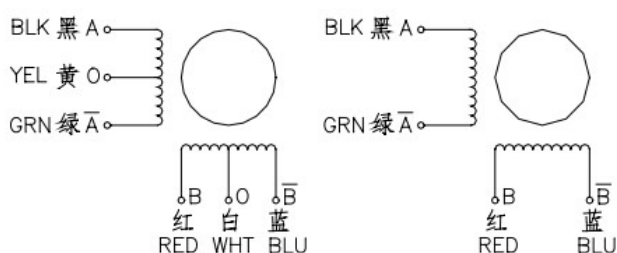


Code	Step angle	Rated current (A)	Resistance per phase ( $\Omega$ )	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Wiring diagram	Motor mass (g)	Motor length "L"
14HM2408	0.9	28	0.8	4.5	4.2	9	0.3	12	4	130
14HM24055	0.9	28	0.55	10	9.5	9	0.3	12	4	130
14HM24036	0.9	28	0.36	22	20	9	0.3	12	4	130
14HM2604	0.9	28	0.4	30	12	8	0.3	12	6	130
14HM3408	0.9	34	0.8	6	10	14	0.6	18	4	190
14HM34055	0.9	34	0.55	12	19	14	0.6	18	4	190
14HM34036	0.9	34	0.36	28	42	14	0.6	18	4	190
14HM3604	0.9	34	0.4	30	18	10	0.6	18	6	190

### Dimensions



### Wiring Diagram



\*We can manufacture products according to customer's requirement.

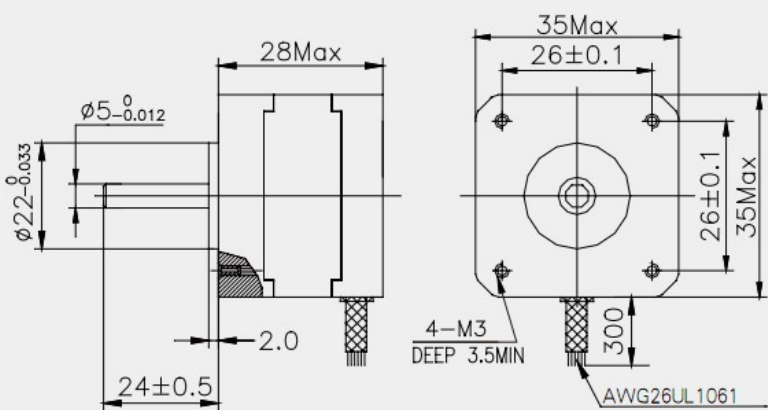
## 14HM1 Series

Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$ ;  
 Temperature rise:  $80^{\circ}\text{C}$  Max;  
 Insulation resistance:  $100\text{M}\Omega$  Min.50V DC;  
 Dielectric Strength: 500V AC 1minute  
 Insulation class: B

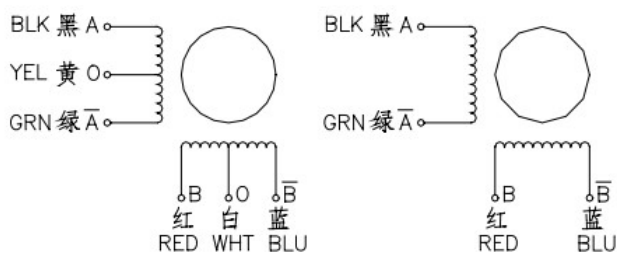


Code	Step angle	Rated current (A)	Resistance per phase ( $\Omega$ )	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Wiring diagram	Motor mass (g)	Motor length "L"
14HM2408	0.9	28	0.8	4.5	4.2	9	0.3	12	4	130
14HM24055	0.9	28	0.55	10	9.5	9	0.3	12	4	130
14HM24036	0.9	28	0.36	22	20	9	0.3	12	4	130
14HM2604	0.9	28	0.4	30	12	8	0.3	12	6	130
14HM3408	0.9	34	0.8	6	10	14	0.6	18	4	190
14HM34055	0.9	34	0.55	12	19	14	0.6	18	4	190
14HM34036	0.9	34	0.36	28	42	14	0.6	18	4	190
14HM3604	0.9	34	0.4	30	18	10	0.6	18	6	190

### Dimensions



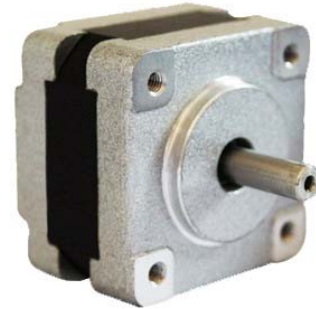
### Wiring Diagram



\*We can manufacture products according to customer's requirement.

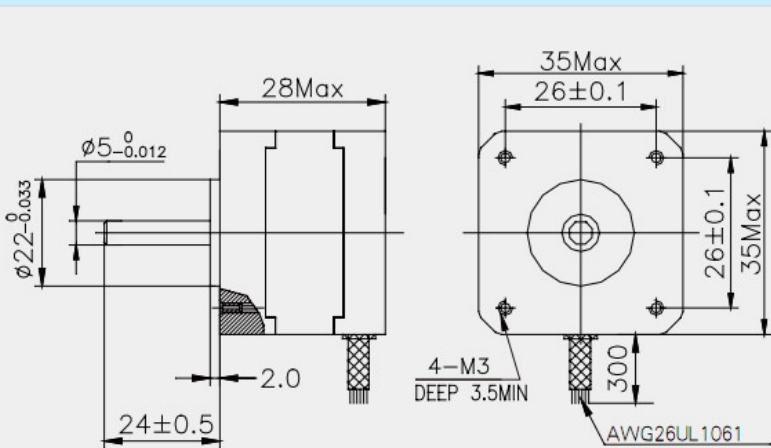
## 14HY Series

Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$ ;  
 Temperature rise:  $80^{\circ}\text{C}$  Max;  
 Insulation resistance:  $100\text{M}\Omega$  Min.50V DC;  
 Dielectric Strength: 500V AC 1minute  
 Insulation class: B

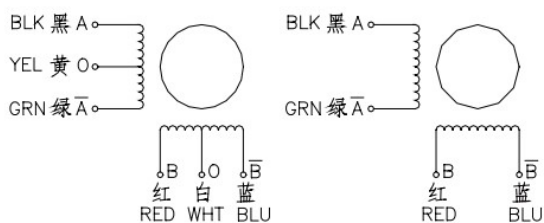


Code	Step angle	Rated current (A)	Resistance per phase ( $\Omega$ )	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Wiring diagram	Motor mass (g)	Motor length "L"
14HY24046	1.8	28	0.46	20	14	12	0.8	11	4	120
14HY2408	1.8	28	0.8	5.0	5.0	12	0.8	11	4	120
14HY2604	1.8	28	0.4	30	11	9	0.8	11	6	120
14HY34042	1.8	34	0.42	25	32	18	1.0	13	4	160
14HY3408	1.8	34	0.8	6.5	9.8	18	1.0	13	4	160
14HY3604	1.8	34	0.4	30	22	12	1.0	13	6	160

### Dimensions



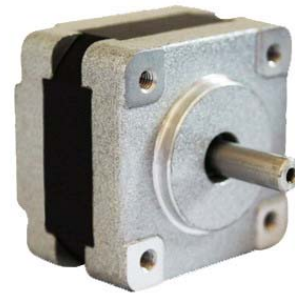
### Wiring Diagram



\*We can manufacture products according to customer's requirement.

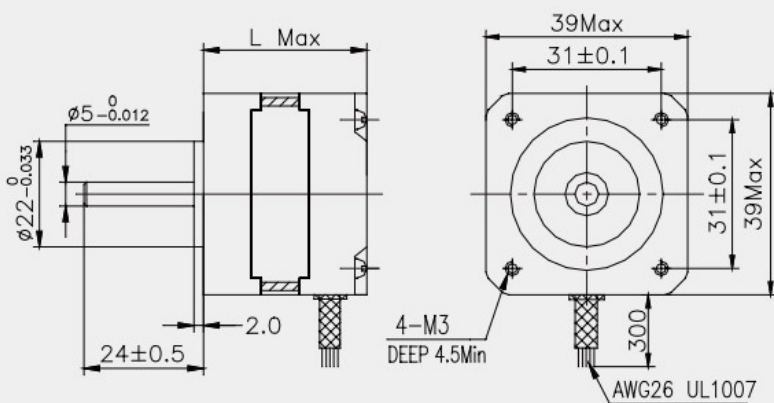
## 16HM Series

Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$ ;  
 Temperature rise:  $80^{\circ}\text{C}$  Max;  
 Insulation resistance: 100M $\Omega$  Min.50V DC;  
 Dielectric Strength: 500V AC 1minute  
 Insulation class: B

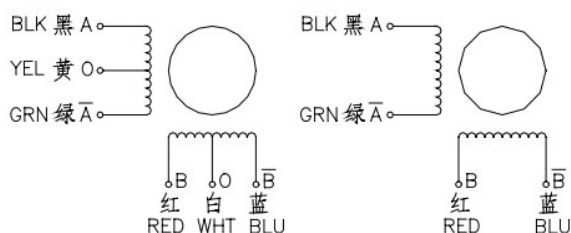


Code	Step angle	Rated current (A)	Resistance per phase ( $\Omega$ )	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Wiring diagram	Motor mass (g)	Motor length "L"
16HM04042	0.9	20	0.42	20	16	8	0.5	15	4	100
16HM2406	0.9	26	0.6	9	16	14	0.8	18	4	120
16HM3406	0.9	34	0.6	9	15	16	1.1	23	4	160
16HM3412	0.9	34	1.2	2.5	3.6	16	1.1	23	4	160
16HM3604	0.9	34	0.4	30	16	12	1.1	23	6	160
16HM4406	0.9	40	0.6	12	20	22	1.4	30	4	210
16HM4412	0.9	40	1.2	3.2	5.5	22	1.4	30	4	210
16HM4604	0.9	40	0.4	30	26	18	1.4	30	6	210

### Dimensions



### Wiring Diagram



\*We can manufacture products according to customer's requirement.

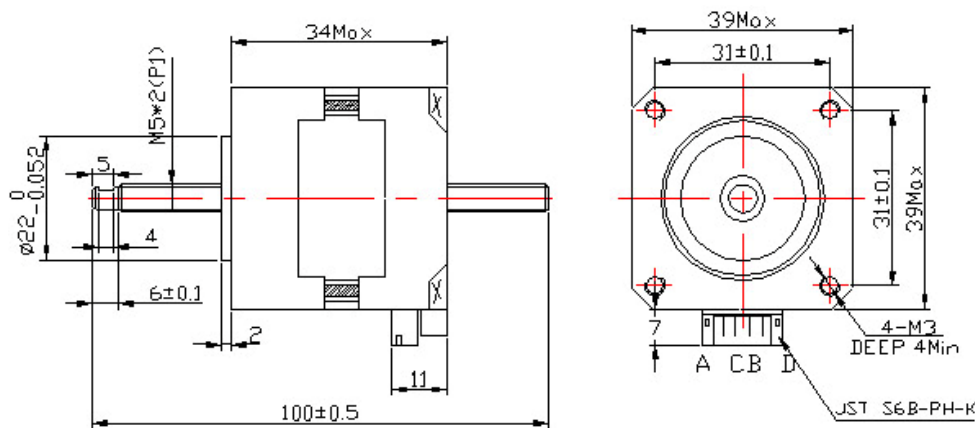
## 16HSL Series

Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$ ;  
 Temperature rise:  $80^{\circ}\text{C}$  Max;  
 Insulation resistance:  $100\text{M}\Omega$  Min.50V DC;  
 Dielectric Strength: 500V AC 1minute  
 Insulation class: B

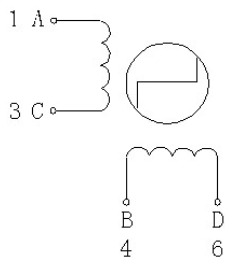


Code	Step angle	Rated current (A)	Resistance per phase ( $\Omega$ )	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Wiring diagram	Motor mass (g)	Motor length "L"
16HSL3404	0.01	34	12	0.4	30	42	0.21	4	0.12	0.02

### Dimensions



### Wiring Diagram



\*We can manufacture products according to customer's requirement.

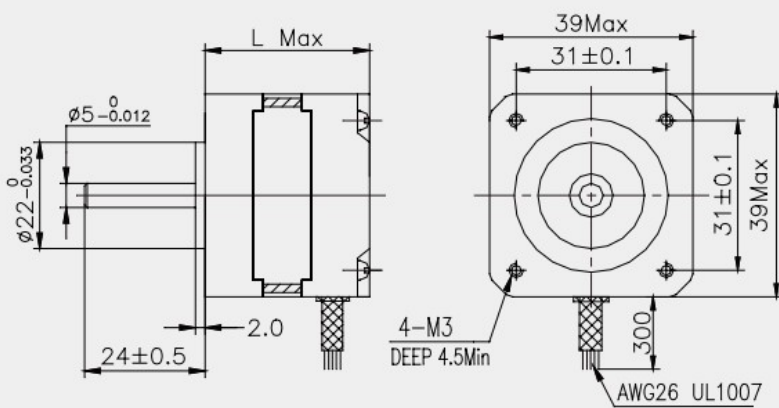
## 16HY Series

Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$ ;  
 Temperature rise:  $80^{\circ}\text{C}$  Max;  
 Insulation resistance:  $100\text{M}\Omega$  Min.50V DC;  
 Dielectric Strength: 500V AC 1minute  
 Insulation class: B

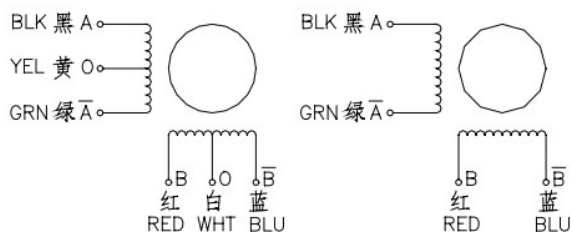


Code	Step angle	Rated current (A)	Resistance per phase ( $\Omega$ )	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Wiring diagram	Motor mass (g)	Motor length "L"
16HY04042	1.8	20	0.42	18	12	8	0.5	12	4	100
16HY2406	1.8	26	0.6	9	10	14	0.8	14	4	120
16HY3406	1.8	34	0.6	12	13	18	1.0	19	4	160
16HY3412	1.8	34	1.2	3.2	3.0	16	1.0	19	4	160
16HY3604	1.8	34	0.4	30	14	12	1.0	19	6	160
16HY4406	1.8	40	0.6	12	20	24	1.2	24	4	210
16HY4412	1.8	40	1.2	3.8	6.5	24	1.2	24	4	210
16HY4604	1.8	40	0.4	30	22	18	1.2	24	4	210

### Dimensions



### Wiring Diagram



\*We can manufacture products according to customer's requirement.

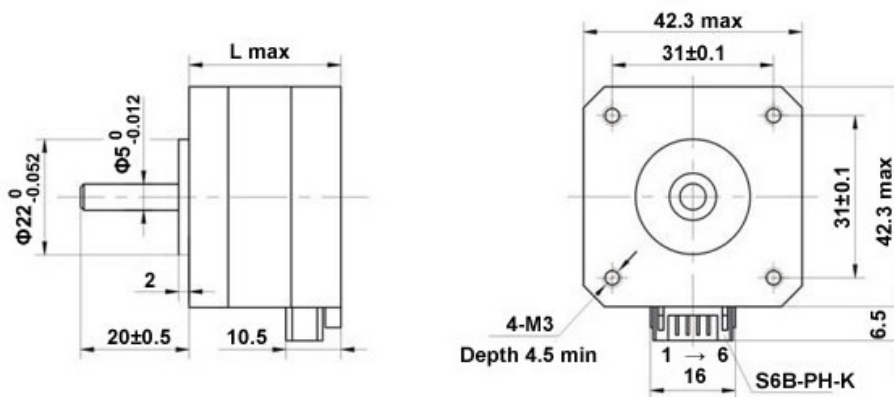
## 17HA Series

Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-10^{\circ}\text{C}$ – $+40^{\circ}\text{C}$ ;  
 Temperature rise: 85K;  
 Insulation resistance: 100Mohm min 500V DC;  
 Insulation class: B.

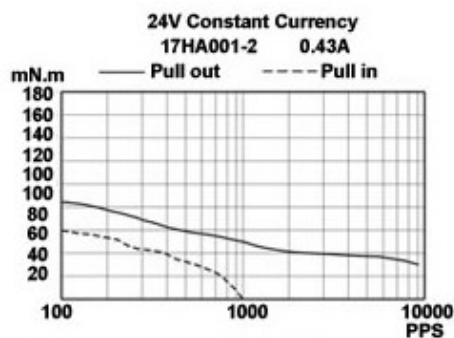


17HA001-2, 17HA002-3, 17HA101-2

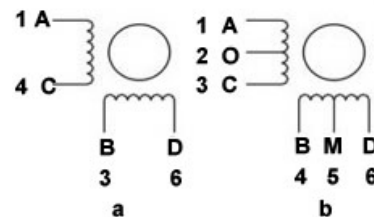
### Figure Dimensions



### Pulse-torque characteristics



### Wiring Diagram



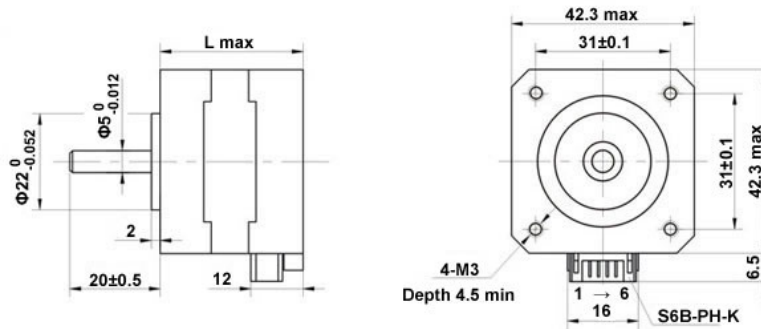
Code	Step angle	Rated current (A)	Resistance per phase ( $\Omega$ )	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Wiring diagram	Motor mass (g)	Motor length "L"
17HA001-2	0.9°	0.43	8.0	11	100	8	20	a	0.19	29.5
17HA002-3	0.9°	0.40	16.8	7	70	8	20	b	0.19	29.5
17HA101-2	0.9°	0.40	30	33	150	12	38	b	0.23	34.0

## 17HD Series

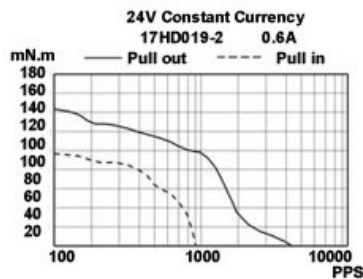
Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$ ;  
 Temperature rise: 85K;  
 Insulation resistance: 100Mohm min 500V DC;  
 Insulation class: B.



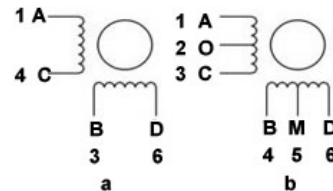
### Figure Dimensions



### Pulse-torque characteristics



### Wiring Diagram



Code	Step angle	Rated current (A)	Resistance per phase ( $\Omega$ )	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Wiring diagram	Motor mass (g)	Motor length "L"
17HD019-2	1.8°	0.6	9	5	160	12	38	b	0.2	34
17HD212-3	1.8°	0.6	7	15	280	15	57	a	0.24	40
17HD401-2	1.8°	0.4	30	45	160	20	82	a	0.38	48
17HD050W	1.8°	0.36	33	17	/	/	38	/	/	34
17HD102	1.8°	0.4	30	37	/	/	54	/	/	38
17HD033	1.8°	0.4	30	27	/	/	38	/	/	34
17HD033N	1.8°	0.4	30	27	/	/	38	/	/	34
17HD301	1.8°	0.33	46.5	110	/	/	72	/	/	44
17HD305N	1.8°	0.5	15	15	/	/	72	/	/	44
17HD401	1.8°	0.4	30	45	/	/	82	/	/	48
17HD403	1.8°	1.5	2	3.85	/	/	82	/	/	48
17HD202	1.8°	0.5	25	50	/	/	57	/	/	40
17HD003	1.8°	0.4	30	37	/	/	38	/	/	34
17HD003N	1.8°	0.4	30	37	/	/	38	/	/	34
17HD004	1.8°	0.28	55	30	/	/	38	/	/	34
17HD005	1.8°	0.6	22	28	/	/	38	/	/	34

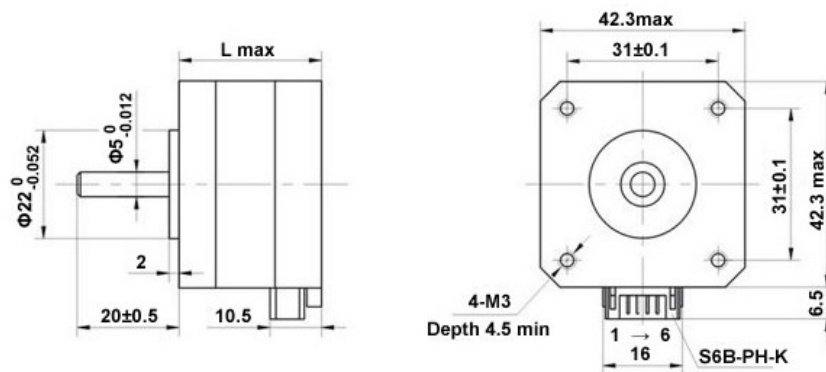
## 17HE Series

Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-10^{\circ}\text{C}$ ~ $+40^{\circ}\text{C}$ ;  
 Temperature rise: 85K;  
 Insulation resistance: 100Mohm min 500V DC;  
 Insulation class: B.

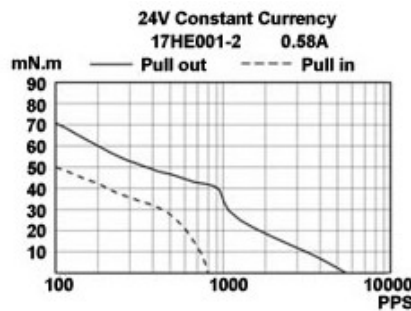


17HE001-2, 17HE501

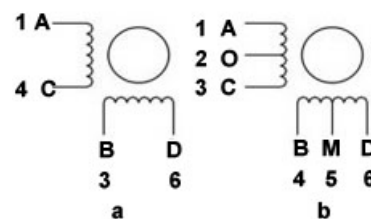
### Figure Dimensions



### Pulse-torque characteristics



### Wiring Diagram



Code	Step angle	Rated current (A)	Resistance per phase (Ω)	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Wiring diagram	Motor mass (g)	Motor length "L"
17HE001-2	3.6°	0.58	12	11.5	15	12	20	/	0.20	/
17HE501	3.6°	0.58	9.6	10.0	/	50	20	/	0.15	/

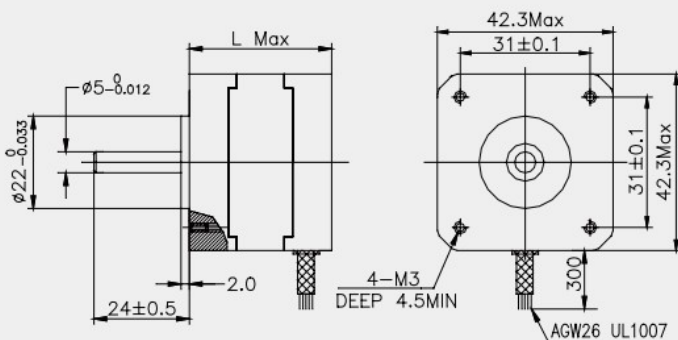
## 17HM Series

Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$ ;  
 Temperature rise:  $80^{\circ}\text{C}$  Max;  
 Insulation resistance:  $100\text{M}\Omega$  Min.50V DC;  
 Dielectric Strength: 500V AC 1minute  
 Insulation class: B

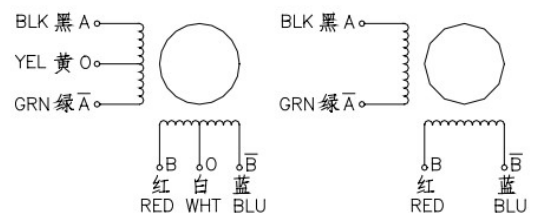


Code	Step angle	Rated current (A)	Resistance per phase ( $\Omega$ )	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Wiring diagram	Motor mass (g)	Motor length "L"
17HM2406	0.9	28	0.6	9	9	10	0.9	20	4	130
17HM3413	0.9	34	1.3	2.4	3.6	24	1.2	34	4	220
17HM3417	0.9	34	1.7	1.2	2.2	24	1.2	34	4	220
17HM3404	0.9	34	0.4	30	45	24	1.2	34	4	220
17HM3604	0.9	34	0.4	30	22	20	1.2	34	6	220
17HM36016	0.9	34	0.16	75	54	12	1.2	34	6	220
17HM4417	0.9	40	1.7	1.5	3.8	36	1.8	54	4	280
17HM4413	0.9	40	1.3	2.5	6.2	36	1.8	54	4	280
17HM4612	0.9	40	1.2	3.2	3.8	26	1.8	54	6	280
17HM4604	0.9	40	0.4	30	34	26	1.8	54	6	280
17HM0417	0.9	48	1.7	1.8	4.0	42	2.2	68	4	350
17HM0413	0.9	48	1.3	3.0	7.0	36	2.2	68	4	350
17HM0423	0.9	48	2.3	1.2	2.0	42	2.2	68	4	350
17HM80604	0.9	48	0.4	30	28	27	2.2	68	6	350

### Dimensions



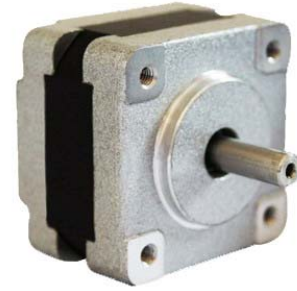
### Wiring Diagram



\*We can manufacture products according to customer's requirement.

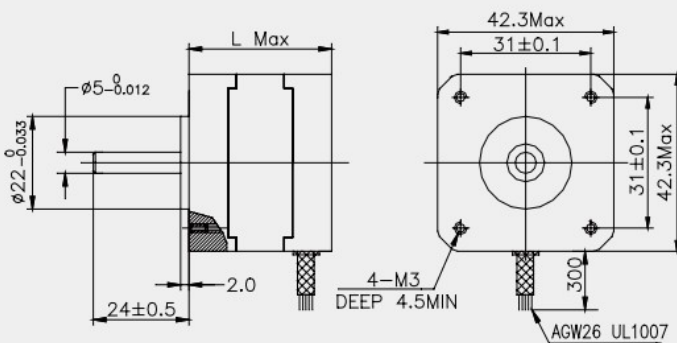
## 17HS Series

Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$ ;  
 Temperature rise:  $80^{\circ}\text{C}$  Max;  
 Insulation resistance:  $100\text{M}\Omega$  Min.50V DC;  
 Dielectric Strength: 500V AC 1minute  
 Insulation class: B

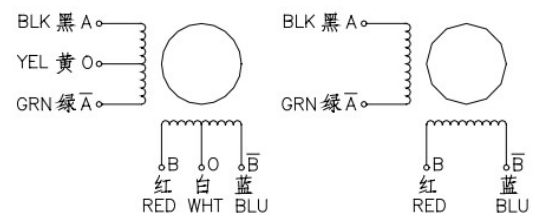


Code	Step angle	Rated current (A)	Resistance per phase ( $\Omega$ )	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Wiring diagram	Motor mass (g)	Motor length "L"
17HS2406	1.8	28	0.6	8	10	12	1.6	34	4	150
17HS3413	1.8	34	1.3	2.4	2.8	28	1.6	34	4	220
17HS3417	1.8	34	1.7	1.2	1.8	28	1.6	34	4	220
17HS3404	1.8	34	0.4	30	35	28	1.6	34	4	220
17HS3604	1.8	34	0.4	30	18	21	1.6	34	6	220
17HS36016	1.8	34	0.16	75	40	14	1.6	34	6	220
17HS4417	1.8	40	1.7	1.5	2.8	40	2.2	54	4	280
17HS4413	1.8	40	1.3	2.5	5.0	40	2.2	54	4	280
17HS4612	1.8	40	1.2	3.2	2.8	28	2.2	54	6	280
17HS4604	1.8	40	0.4	30	28	28	2.2	54	6	280
17HS0417	1.8	48	1.7	1.8	3.2	52	2.6	68	4	350
17HS0413	1.8	48	1.3	3.2	5.5	52	2.6	68	4	350
17HS0423	1.8	48	2.3	1.2	1.6	46	2.6	68	4	350
17HS0604	1.8	48	0.4	30	38	34	2.6	68	6	350

### Dimensions



### Wiring Diagram



\*We can manufacture products according to customer's requirement.

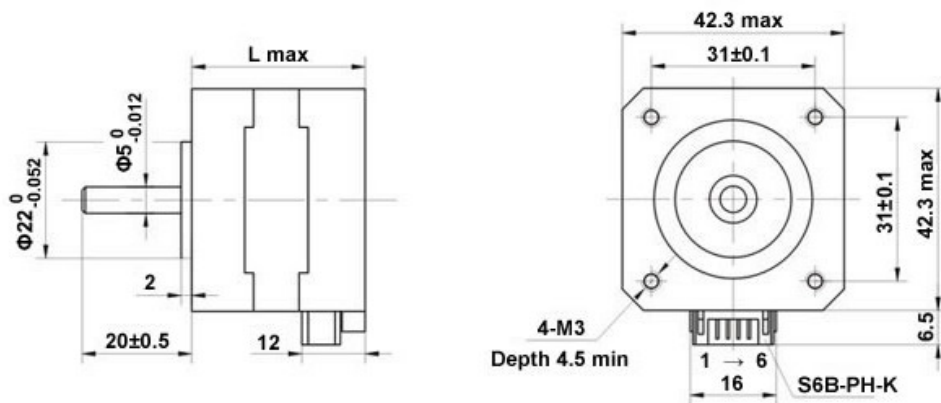
## 17HY Series

Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$ ;  
 Temperature rise: 85K;  
 Insulation resistance: 100Mohm min 500V DC;  
 Insulation class: B.

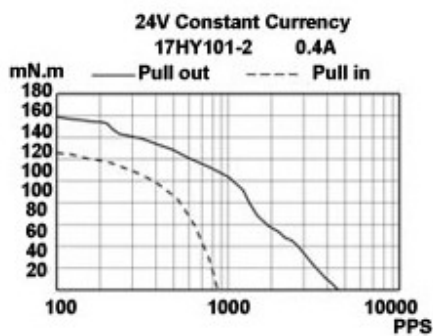


17HY001-2, 17HY101-2

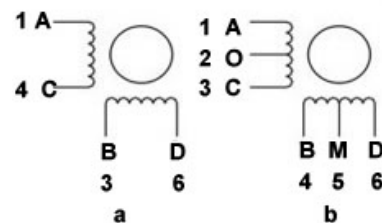
### Figure Dimensions



### Pulse-torque characteristics



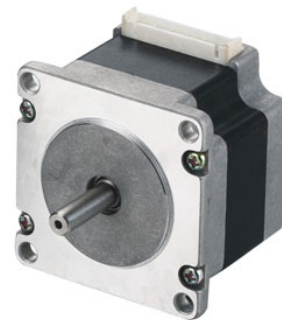
### Wiring Diagram



Code	Step angle	Rated current (A)	Resistance per phase ( $\Omega$ )	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Wiring diagram	Motor mass (g)	Motor length "L"
17HY001-2	1.8°	0.8	3.5	2.5	130	12	20	b	0.20	34
17HY101-2	1.8°	0.4	30	24	180	15	24	a	0.23	38

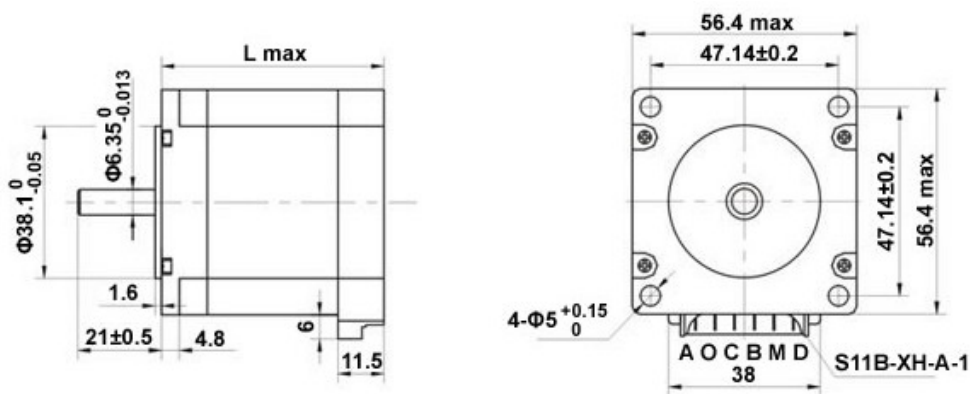
## 23HA Series

Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-10^{\circ}\text{C}$ - $+40^{\circ}\text{C}$ ;  
 Temperature rise: 85K;  
 Insulation resistance: 100Mohm min 500V DC;  
 Insulation class: B.

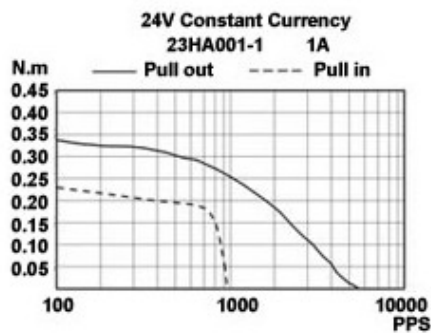


23HA001-1, 23HA002-1, 23HA101-1

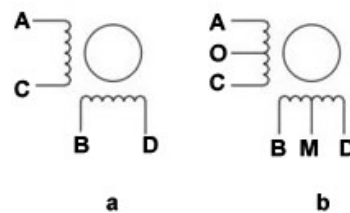
### Figure Dimensions



### Pulse-torque characteristics



### Wiring Diagram



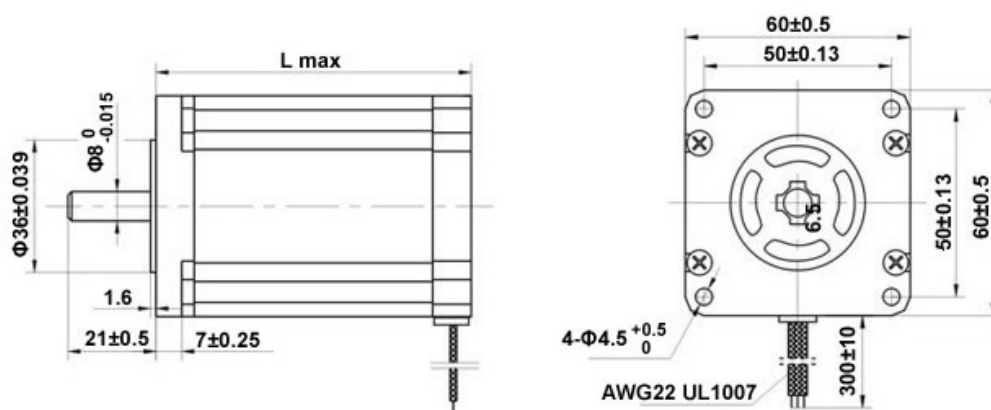
Code	Step angle	Rated current (A)	Resistance per phase (Ω)	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Wiring diagram	Motor mass (g)	Motor length "L"
23HA001-1	0.9°	1.0	4	6	0.42	22	135	b	0.42	41
23HA002-1	0.9°	0.6	20	45	0.60	22	135	a	0.42	41
23HA101-1	0.9°	0.8	6	10	0.60	25	135	b	0.50	45

## 24HC Series

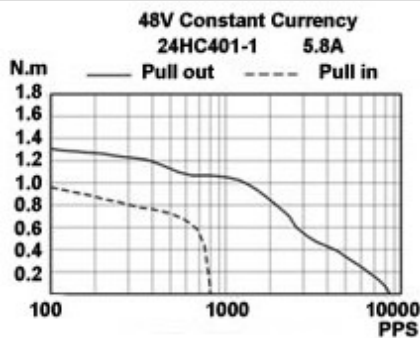


24HC001-1, 24HC101-1

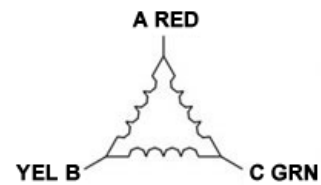
### Figure Dimensions



### Pulse-torque characteristics



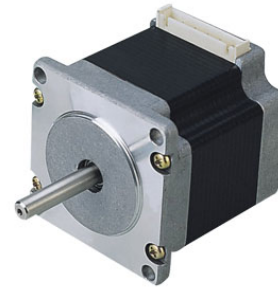
### Wiring Diagram



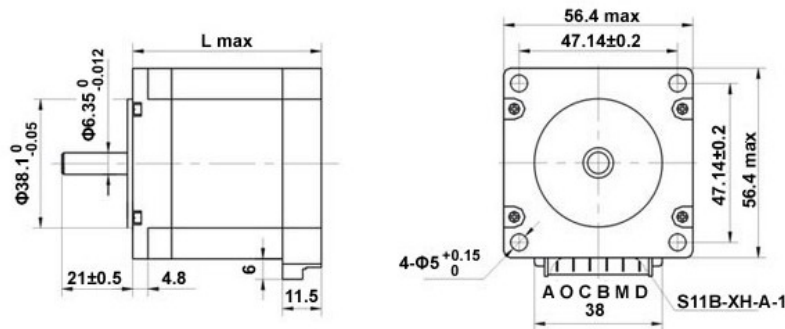
Code	Step angle	Rated current (A)	Resistance per phase ( $\Omega$ )	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Motor mass (g)	Motor length "L"
24HC001-1	1.2°	3	5.8	0.47	0.8	0.9	0.04	0.8	54
24HC101-1	1.2°	3	5.8	0.68	1.36	1.5	0.07	1.3	76

## 23HD Series

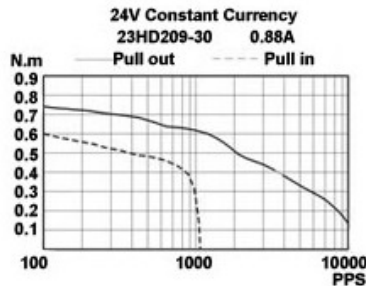
Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-10^{\circ}\text{C}$ – $+40^{\circ}\text{C}$ ;  
 Temperature rise: 85K;  
 Insulation resistance: 100Mohm min 500V DC;  
 Insulation class: B.



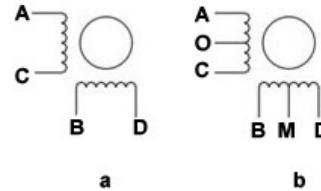
### Figure Dimensions



### Pulse-torque characteristics



### Wiring Diagram



Code	Step angle	Rated current (A)	Resistance per phase (Ω)	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Wiring diagram	Motor mass (g)	Motor length "L"
23HD002-1	1.8°	0.60	12.0	25	0.50	22	135	a	0.42	41
23HD003-1	1.8°	1.50	1.5	1.5	0.35	22	135	b	0.42	41
23HD209-30	1.8°	0.88	7.0	22	0.82	32	220	a	0.55	51
23HD219-18	1.8°	1.00	5.1	9	0.62	32	220	a	0.55	51
23HD906-29	1.8°	0.60	14.0	55	1.5	78	520	a	1.2	82
23HD001	1.8°	0.50	12.0	20	/	/	135	/	0.42	41
23HD006	1.8°	1.00	5.0	5	/	/	135	/	0.42	41
23HD101	1.8°	0.60	12.0	28	/	/	155	/	0.5	45
23HD203	1.8°	0.70	12.0	40	/	/	220	/	0.55	51
23HD401	1.8°	0.60	12.0	43	/	/	260	/	0.6	54
23HD402	1.8°	0.88	7.5	21	/	/	260	/	0.6	54
23HD601	1.8°	0.60	12.0	35	/	/	280	/	0.62	56
23HD606	1.8°	0.60	2.0	3.5	/	/	280	/	0.62	56
23HD701	1.8°	5.00	0.75	1.5	/	/	380	/	0.82	65
23HD801	1.8°	0.75	16.0	60	/	/	460	/	1	76
23HD802	1.8°	4.20	20.5	2.1	/	/	460	/	1	76

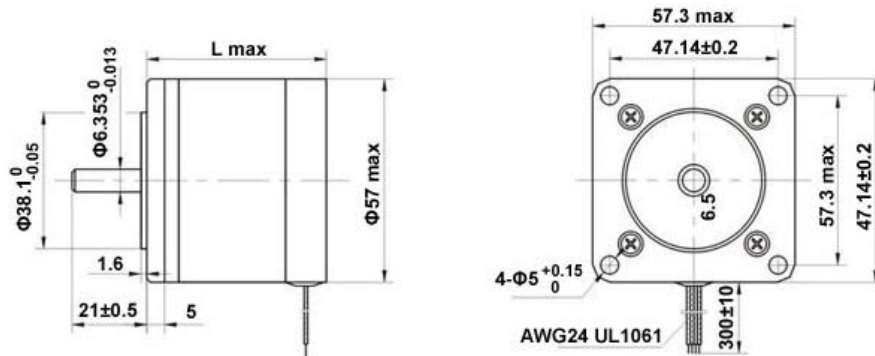
## 23HY Series

Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-10^{\circ}\text{C}$  -  $+40^{\circ}\text{C}$ ;  
 Temperature rise: 85K;  
 Insulation resistance: 100Mohm min 500V DC;  
 Insulation class: B.

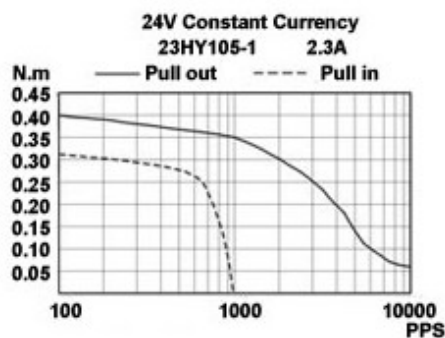


23HY001-1, 23HY101-1, 23HY105-1, 23HY302-1

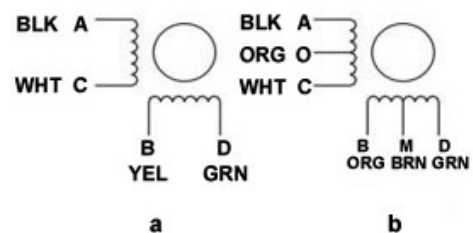
### Figure Dimensions



### Pulse-torque characteristics



### Wiring Diagram



Code	Step angle	Rated current (A)	Resistance per phase (Ω)	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Wiring diagram	Motor mass (g)	Motor length "L"
23HY001-1	1.8°	1.4	2.3	4.0	0.5	18	55	a	0.36	39
23HY101-1	1.8°	2.5	1.0	2.0	0.6	35	120	a	0.52	51
23HY105-1	1.8°	2.3	1.0	1.1	0.5	35	120	b	0.52	51
23HY302-1	1.8°	3.0	0.9	1.3	1.06	72	200	b	0.95	76

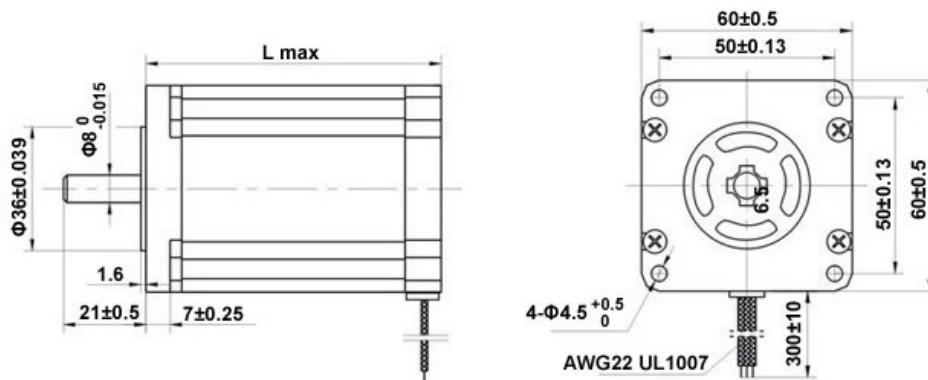
## 24HC Series

Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-10^{\circ}\text{C}$ – $+40^{\circ}\text{C}$ ;  
 Temperature rise: 85K;  
 Insulation resistance: 100Mohm min 500V DC;  
 Insulation class: B.

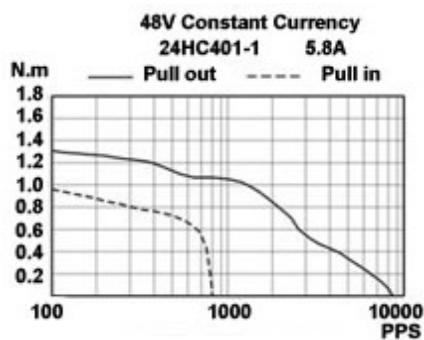


24HC101-1, 24HC401-1

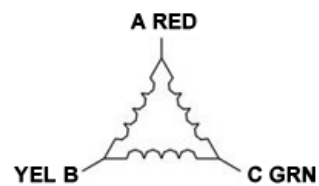
### Figure Dimensions



### Pulse-torque characteristics



### Wiring Diagram



Code	Step angle	Rated current (A)	Resistance per phase ( $\Omega$ )	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Motor mass (g)	Motor length "L"
24HC101-1	1.2°	3	5.8	0.47	0.8	0.9	0.04	0.8	54
24HC401-1	1.2°	3	5.8	0.68	1.36	1.5	0.07	1.3	76

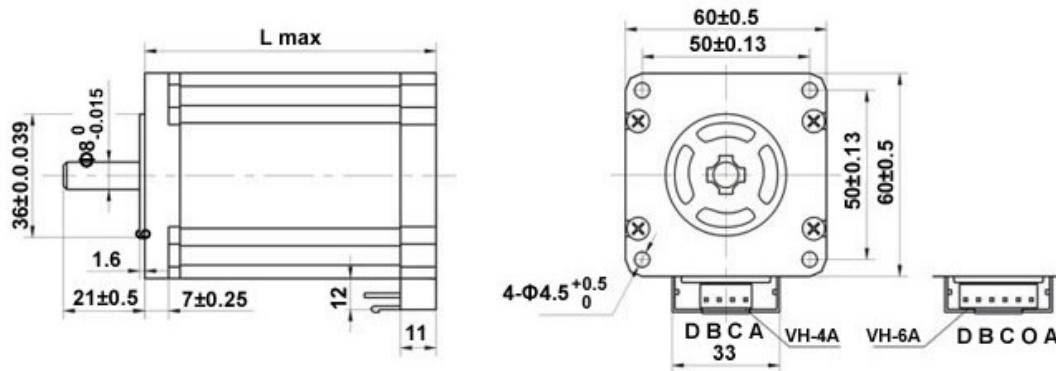
## 24HD Series

Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-10^{\circ}\text{C}$  -  $+40^{\circ}\text{C}$ ;  
 Temperature rise: 85K;  
 Insulation resistance: 100Mohm min 500V DC;  
 Insulation class: B.

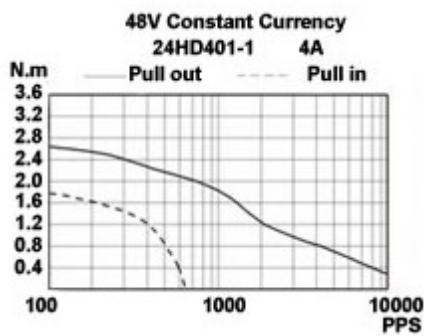


24HD401-1, 24HD401-1

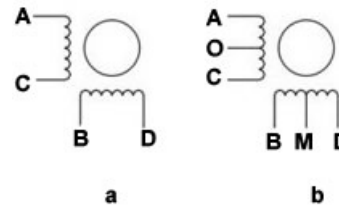
### Figure Dimensions



### Pulse-torque characteristics



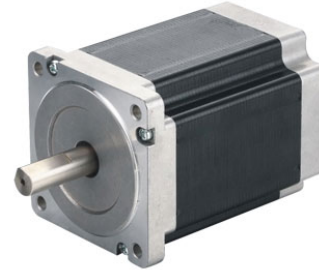
### Wiring Diagram



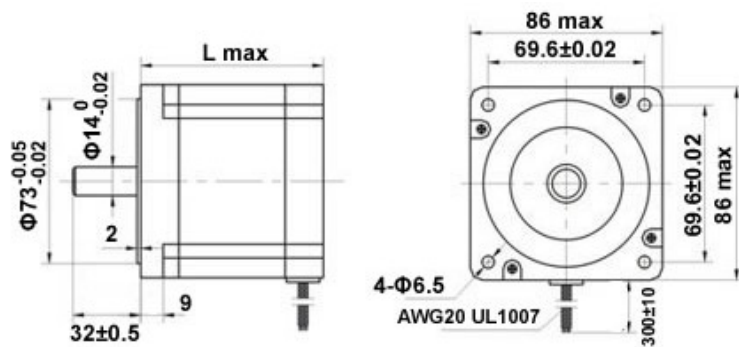
Code	Step angle	Rated current (A)	Resistance per phase ( $\Omega$ )	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Wiring diagram	Motor mass (g)	Motor length "L"
24HD401-1	1.8°	4.0	0.65	2.4	3.0	0.16	840	a	1.35	86
24HD401-1	1.8°	2.8	0.32	0.6	1.8	0.16	840	b	1.35	86

### 34HD Series

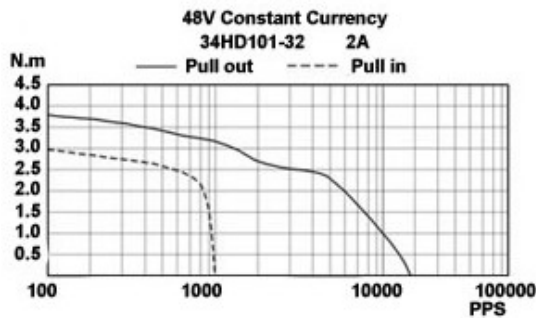
Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-10^{\circ}\text{C}$ - $+40^{\circ}\text{C}$ ;  
 Temperature rise: 85K;  
 Insulation resistance: 100Mohm min 500V DC;  
 Insulation class: B.



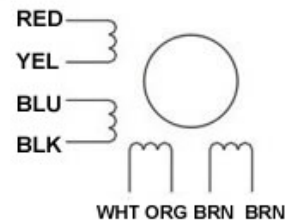
### Figure Dimensions



### Pulse-torque characteristics



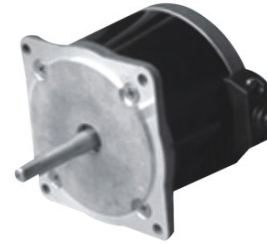
### Wiring Diagram



Code	Step angle	Rated current (A)	Resistance per phase ( $\Omega$ )	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Motor mass (kg)	Motor length "L"
34HD001-32	1.8°	4	2.0	2.2	10	2.1	0.10	0.8	1.7
34HD001-32	1.8°	4	2.0	3.2	18	4.1	0.18	1.6	2.8
34HD001-32	1.8°	4	3.0	1.2	1.6	4.2	0.24	2.8	3.2
34HD401-30	1.8°	4	4.0	0.75	3.6	/	/	1.4	1.6
34HD001-32	1.8°	4	2.0	2.2	2	/	/	1.4	1.7
34HD501-37	1.8°	4	4.0	0.3	3.2	/	/	3.3	2.0
34HD101-32	1.8°	4	2.0	3.2	18	/	/	2.7	2.0
34HD105-32	1.8°	4	4.0	0.98	4.1	/	/	2.7	2.8
34HD201-32	1.8°	4	4.0	0.6	6.5	/	/	4.0	3.8

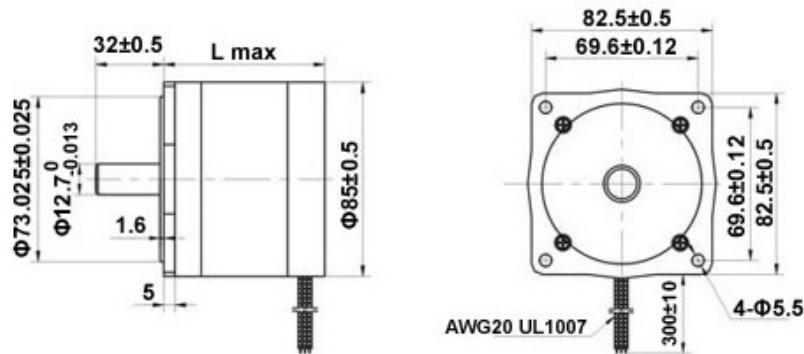
### 34HY Series

Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-10^{\circ}\text{C}$ - $+40^{\circ}\text{C}$ ;  
 Temperature rise: 85K;  
 Insulation resistance: 100Mohm min 500V DC;  
 Insulation class: B.

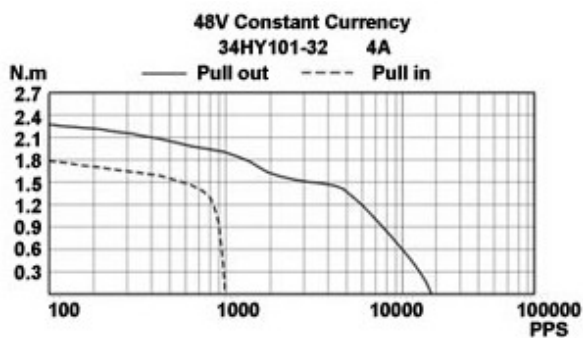


34HY001-32, 34HY101-32, 34HY102-32, 34HY103-32

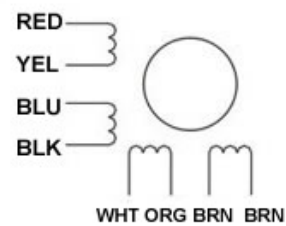
#### Figure Dimensions



#### Pulse-torque characteristics



#### Wiring Diagram



Code	Step angle	Rated current (A)	Resistance per phase (Ω)	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Motor mass (kg)	Motor length "L"
34HY001-32	1.8°	4	3.0	1.00	3.75	2.2	0.08	0.64	1.5
34HY101-32	1.8°	4	4.0	0.75	3.50	2.5	0.15	1.30	2.6
34HY102-32	1.8°	4	4.6	0.55	2.60	2.5	0.15	1.30	2.6
34HY103-32	1.8°	4	2.5	1.70	9.00	2.5	0.15	1.30	2.6

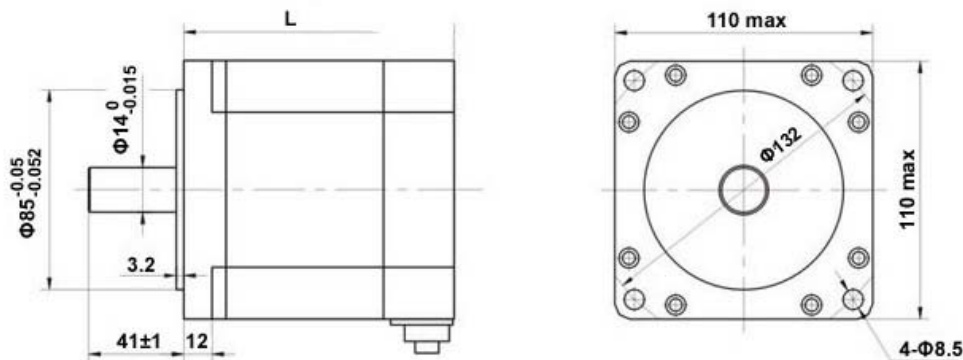
## 43HC Series

Positional error:  $\pm 5\%$ ;  
 Working Temperature:  $-10^{\circ}\text{C}$ - $+40^{\circ}\text{C}$ ;  
 Temperature rise: 85K;  
 Insulation resistance: 100Mohm min 500V DC;  
 Insulation class: B.

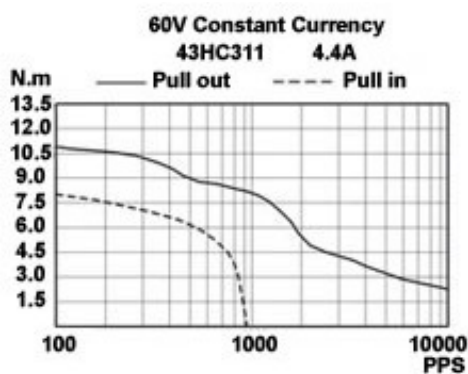


43HC301, 43HC311

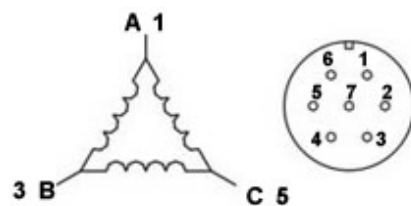
### Figure Dimensions



### Pulse-torque characteristics



### Wiring Diagram



Code	Step angle	Rated current (A)	Resistance per phase (Ω)	Inductance per phase (mH)	Holding torque (mN.m)	Detent torque (mN.m)	Rotor inertia (g.cm <sup>2</sup> )	Motor mass (kg)	Motor length "L"
43HC301	1.2°	3	4.1	2	4.2	10	0.17	2.0	6
43HC311	1.2°	3	4.1	2	4.6	12	0.20	2.4	8