



HYBRID STEPPING MOTORS | Step Angle 1.8° With Cable

We offer a broad range of high quality hybrid stepping motors in standard and customized configurations. Our customer-centric approach makes us the ideal supplier for your project, especially to instrument and apparatus builders. In addition, we offer immediate delivery, thanks to always having a high number of motors in stock.

Customizations include:

- ✓ Customized harness
- ✓ Winding configuration
- ✓ Shaft configuration
- ✓ And more...

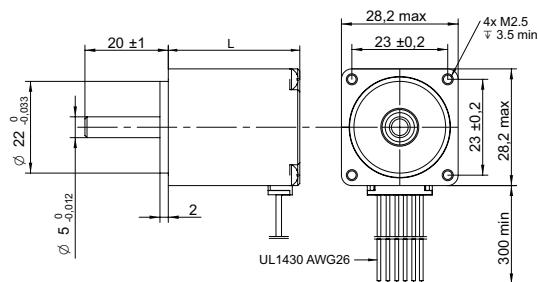
TABLE OF CONTENTS

MODEL	FLANGE mm	LENGTH mm	HOLDING TORQUE Nm	CURRENT PHASE A	PAGE
SHW2832-18-067	28	32	0.06	0.67	1
SHW2845-18-067	28	45	0.09	0.67	1
SHW2851-18-067	28	51	0.12	0.67	1
SHW3526-18-028	35	26	0.07	0.28	2
SHW3528-18-050	35	28	0.10	0.5	2
SHW3536-18-100	35	36	0.14	1	2
SHW3920-18-040	39	20	0.08	0.4	3
SHW3931-18-030	39	31	0.18	0.3	3
SHW3934-18-040	39	34	0.21	0.4	3
SHW3938-18-050	39	38	0.36	0.5	3
SHW4226-18-040	42	26	0.17	0.4	4
SHW4234-18-133	42	34	0.22	1.3	4
SHW4240-18-168	42	40	0.36	1.7	4
SHW4248-18-168	42	48	0.44	1.7	4
SHW5740-18-280	57	40	3	2.8	5
SHW5750-18-280	57	50	0.55	2.8	5
SHW5775-18-280	57	75	1	2.8	5
SHW57115-18-280	57	115	1.9	2.8	5
SHW6047-18-280	60	47	1.1	2.8	6
SHW6056-18-280	60	56	1.7	2.8	6
SHW6067-18-280	60	67	2.1	2.8	6
SHW6088-18-280	60	88	3	2.8	6
SHW8694-18-280	86	94	4.8	2.8	7
SHW8665-18-400	86	65	3.5	4	8
SHW8680-18-600	86	80	4.5	6	8
SHW86118-18-600	86	118	8.5	6	8
SHW86156-18-600	86	156	12	6	8
SHW11099-18-550	110	99	11	5.5	9

TABLE OF CONTENTS

MODEL	FLANGE mm	LENGTH mm	HOLDING TORQUE Nm	CURRENT PHASE A	PAGE
SHW110150-18-650	110	150	21	6.5	9
SHW110201-18-800	110	201	28	8	9

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

SHW28 - STEP ANGLE - CURRENT

Example: SHW2832-18-067

OPTIONS DRIVER AND POWER SUPPLY



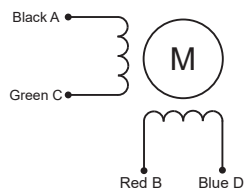
● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

COMMON MOTOR DATA

C

Step angle	°	1.8	
Step angle accuracy ¹	%	± 5	
Shaft material	X8CrNiS18-9 SUS303		●
Bearing type	Ball bearing		●
Radial play ²	mm	0.02	
Axial play ²	mm	0.08	
Max. radial force ³	N	28	
Max. axial force	N	7	
Dielectric strength ⁴	V	600	
Insulation resistance ⁵	MΩ	100	
Operating temperature	°C	-20 to 50	●
Insulation class	Class B		
IP rating	IP30		●
Connection harness	UL 1061 AWG26 300 mm		●
Connector	Not in standard		●

EXCITATION SEQUENCE TABLE



CW	A	C	B	D
1	●		●	
2		●	●	
3		●		●
4	●			●
1	●		●	

● = +Polarity

SPEED | TORQUE PERFORMANCE GRAPH PULL OUT

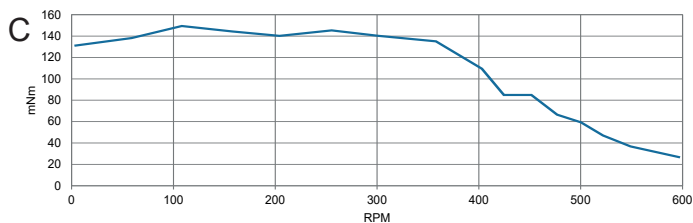
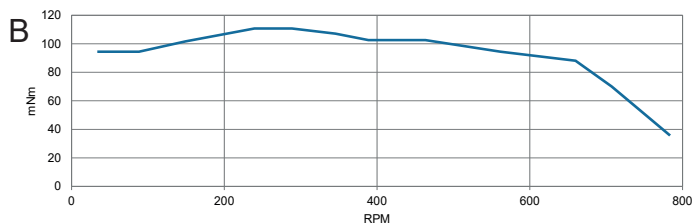
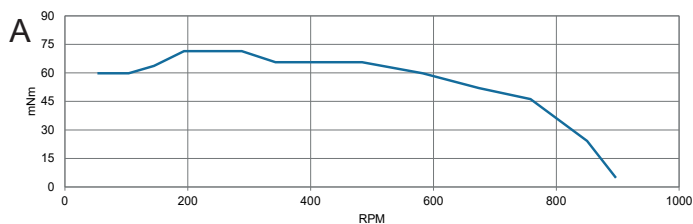
Graph		A	B	C
Supply voltage	V	24	24	24
Current phase	A	0.67	0.67	0.67

NOTES

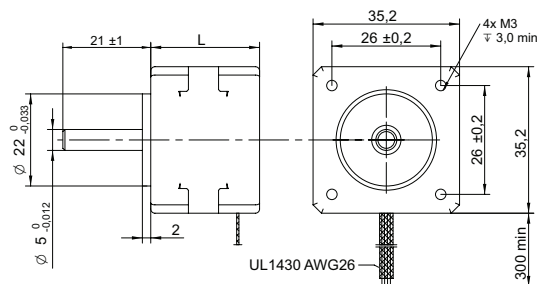
1. Full step no load.
2. 450 g load.
3. 20 mm from shaft.
4. AC, 1 second.
5. 500 V, DC.

MODEL-SPECIFIC MOTOR DATA

Model		SHW2832-18-067	SHW2845-18-067	SHW2851-18-067
Graph		A	B	C
Holding torque	mNm	60	95	120
Detent torque	mNm	5	6	8
Rotor inertia	gcm²	4	12	18
Current phase	A	0.67	0.67	0.67
Resistance phase	Ω	5.6	6.8	9.2
Inductance	mH	3.4	4.9	7.2
Length L	mm	32	45	51
Weight	kg	0.11	0.14	0.2



DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

SHW35 - STEP ANGLE - CURRENT

Example: SHW3526-18-028

OPTIONS DRIVER AND POWER SUPPLY



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

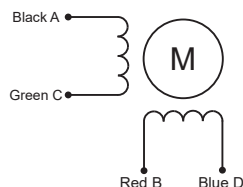
COMMON MOTOR DATA

Step angle	°	1.8	
Step angle accuracy ¹	%	± 5	
Shaft material	X8CrNiS18-9 SUS303		●
Bearing type	Ball bearing		●
Radial play ²	mm	0.02	
Axial play ²	mm	0.08	
Max. radial force ³	N	28	
Max. axial force	N	10	
Dielectric strength ⁴	V	600	
Insulation resistance ⁵	MΩ	100	
Operating temperature	°C	-20 to 50	●
Insulation class	Class B		
IP rating	IP30		●
Connection harness	UL 1430 AWG26 300 mm		●
Connector	Not in standard		●

MODEL-SPECIFIC MOTOR DATA

Model		SHW3526-18-028	SHW3528-18-050	SHW3536-18-100
Graph		A	B	C
Holding torque	mNm	70	100	140
Detent torque	mNm	6	8	10
Rotor inertia	gcm²	10	11	14
Current phase	A	0.28	0.5	1
Resistance phase	Ω	26	20	2.7
Inductance	mH	27	14	4.3
Length L	mm	26	28	36
Weight	kg	0.13	0.14	0.18

EXCITATION SEQUENCE TABLE



CW	A	C	B	D
1	●		●	
2		●	●	
3				●
4	●			●
1	●		●	

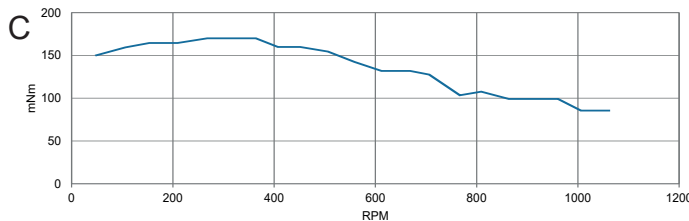
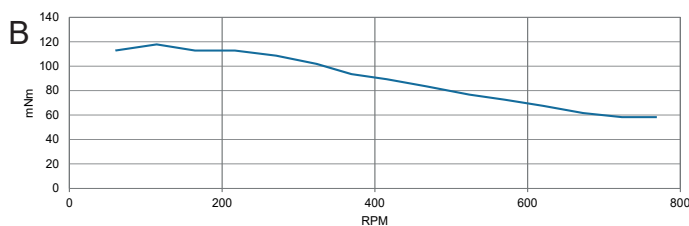
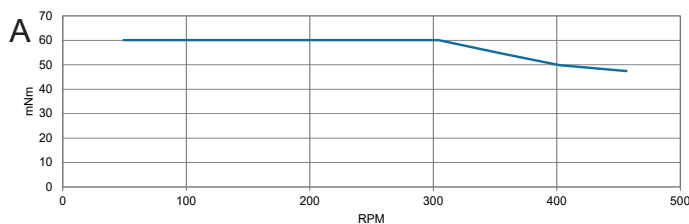
● = +Polarity

SPEED | TORQUE PERFORMANCE GRAPH PULL OUT

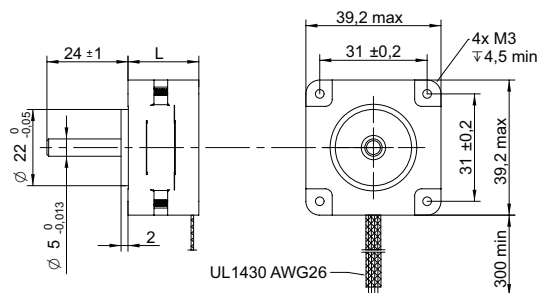
Graph		A	B	C
Supply voltage	V	24	24	24
Current phase	A	0.35	0.5	1

NOTES

1. Full step no load.
2. 450 g load.
3. 20 mm from shaft.
4. AC, 1 second.
5. 500 V, DC.



DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

SHW39 - STEP ANGLE - CURRENT

Example: SHW3920-18-040

OPTIONS DRIVER AND POWER SUPPLY



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

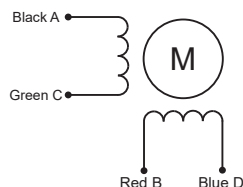
COMMON MOTOR DATA

Step angle	°	1.8	
Step angle accuracy ¹	%	± 5	
Shaft material	X8CrNiS18-9 SUS303		●
Bearing type	Ball bearing		●
Radial play ²	mm	0.02	
Axial play ²	mm	0.08	
Max. radial force ³	N	28	
Max. axial force	N	10	
Dielectric strength ⁴	V	600	
Insulation resistance ⁵	MΩ	100	
Operating temperature	°C	-20 to 50	●
Insulation class	Class B		
IP rating	IP30		●
Connection harness	UL 1430 AWG26 300 mm		●
Connector	Not in standard		●

MODEL-SPECIFIC MOTOR DATA

Model		SHW3920-18-040	SHW3931-18-030	SHW3934-18-040	SHW3938-18-050
Graph		A	B	-	D
Holding torque	mNm	85	180	210	360
Detent torque	mNm	8	10	12	12
Rotor inertia	gcm²	0.12	0.18	20	0.2
Current phase	A	0.4	0.3	0.4	0.5
Resistance phase	Ω	6.6	40	30	24
Inductance	mH	7	30	43	50
Length L	mm	20	31	34	38
Weight	kg	0.05	0.12	0.18	0.18

EXCITATION SEQUENCE TABLE



CW	A	C	B	D
1	●		●	
2		●	●	
3		●		●
4	●			●
1	●		●	

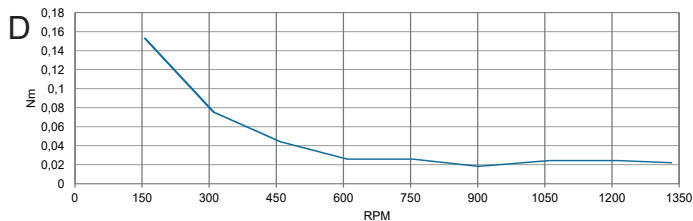
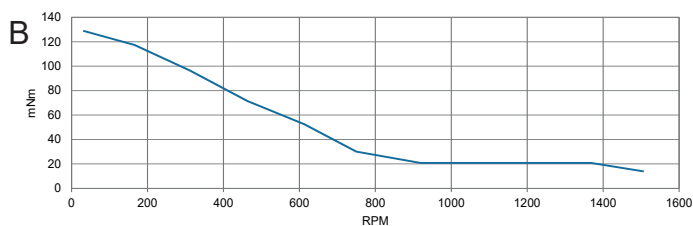
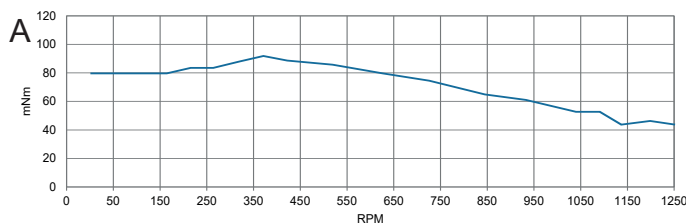
● = +Polarity

SPEED | TORQUE PERFORMANCE GRAPH PULL OUT

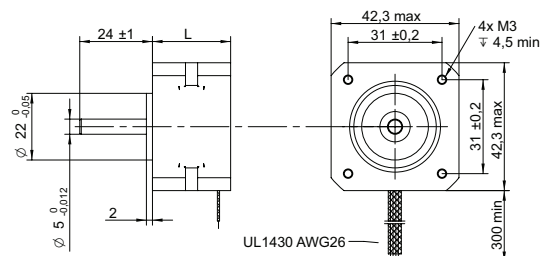
Graph		A	B	C	D
Supply voltage	V	24	24	-	24
Current phase	A	0.42	0.42	-	0.45

NOTES

1. Full step no load.
2. 450 g load.
3. 20 mm from shaft.
4. AC, 1 second.
5. 500 V, DC.



DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

SHW42

-

STEP ANGLE

-

CURRENT

Example: SHW4226-18-040

OPTIONS DRIVER AND POWER SUPPLY



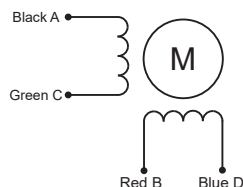
● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

COMMON MOTOR DATA

C

Step angle	°	1.8	
Step angle accuracy ¹	%	± 5	
Shaft material		X8CrNiS18-9 SUS303	●
Bearing type		Ball bearing	●
Radial play ²	mm	0.02	
Axial play ²	mm	0.08	
Max. radial force ³	N	28	
Max. axial force	N	10	
Dielectric strength ⁴	V	600	
Insulation resistance ⁵	MΩ	100	
Operating temperature	°C	-20 to 50	●
Insulation class		Class B	
IP rating		IP30	●
Connection harness		UL 1430 AWG26 300 mm	●
Connector		Not in standard	●

EXCITATION SEQUENCE TABLE



CW	A	C	B	D
1	●		●	
2		●	●	
3		●		●
4	●			●
1	●		●	

● = +Polarity

SPEED | TORQUE PERFORMANCE GRAPH PULL OUT

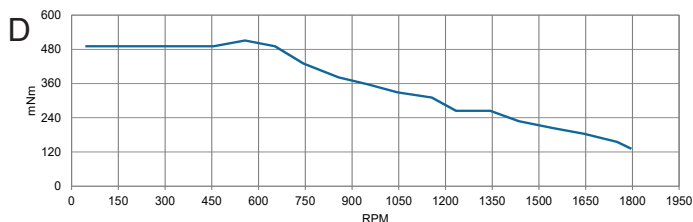
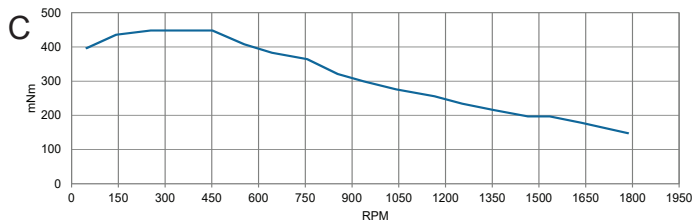
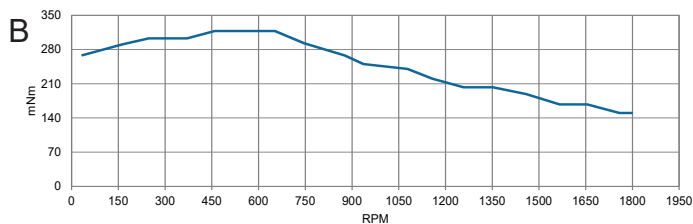
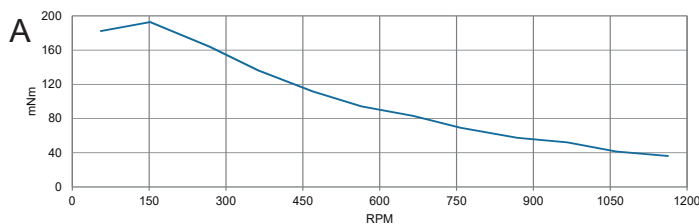
Graph	A	B	C	D
Supply voltage	V	36	36	36
Current phase	A	0.42	1.4	1.7

NOTES

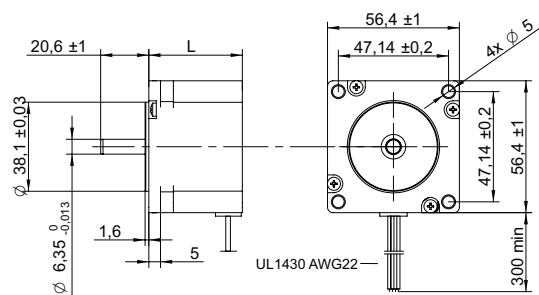
1. Full step no load.
2. 450 g load.
3. 20 mm from shaft.
4. AC, 1 second.
5. 500 V, DC.

MODEL-SPECIFIC MOTOR DATA

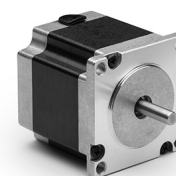
Model		SHW4226-18-040	SHW4234-18-133	SHW4240-18-168	SHW4248-18-168
Graph		A	B	C	D
Holding torque	mNm	170	220	360	440
Detent torque	mNm	7.5	12	15	20
Rotor inertia	gcm ²	20	35	54	68
Current phase	A	0.4	1.3	1.7	1.7
Resistance phase	Ω	24	2.1	1.7	1.7
Inductance	mH	30	2.5	3.2	2.8
Length L	mm	26	33.5	39.5	47.5
Weight	kg	0.15	0.22	0.28	0.35



DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

SHW57 - STEP ANGLE - CURRENT

Example: SHW5740-18-280

OPTIONS DRIVER AND POWER SUPPLY



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

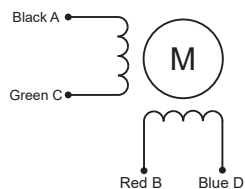
COMMON MOTOR DATA

Step angle	°	1.8	
Step angle accuracy ¹	%	± 5	
Shaft material		X8CrNiS18-9 SUS303	●
Bearing type		Ball bearing	●
Radial play ²	mm	0.02	
Axial play ²	mm	0.08	
Max. radial force ³	N	75	
Max. axial force	N	15	
Dielectric strength ⁴	V	600	
Insulation resistance ⁵	MΩ	100	
Operating temperature	°C	-20 to 50	●
Insulation class		Class B	
IP rating		IP30	●
Connection harness		UL 1430 AWG22 300 mm	●
Connector		Not in standard	●

MODEL-SPECIFIC MOTOR DATA

Model	SHW5740-18-280	SHW5750-18-280	SHW5775-18-280	SHW57115-18-280
Graph	A	B	C	-
Holding torque	Nm	0.55	1	3
Detent torque	Nm	0.02	0.035	0.068
Rotor inertia	gcm ²	120	275	480
Current phase	A	2.8	2.8	2.8
Resistance phase	Ω	0.7	0.83	1.13
Inductance	mH	1.4	2.2	3.6
Length L	mm	40	50	75
Weight	kg	0.45	0.65	1

EXCITATION SEQUENCE TABLE



CW	A	C	B	D
1	●		●	
2		●	●	
3		●		●
4	●			●
1	●		●	

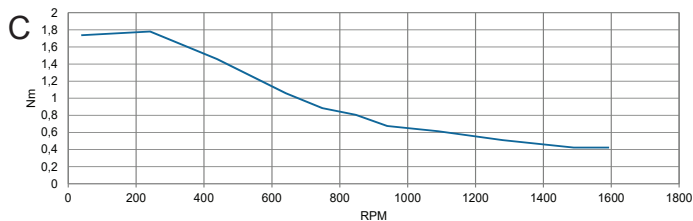
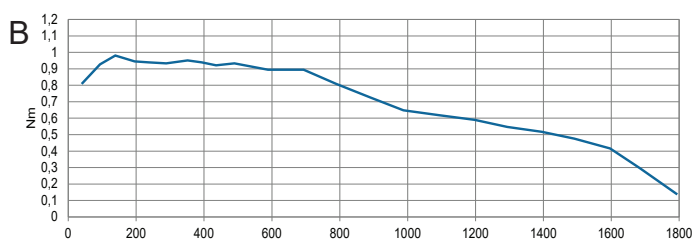
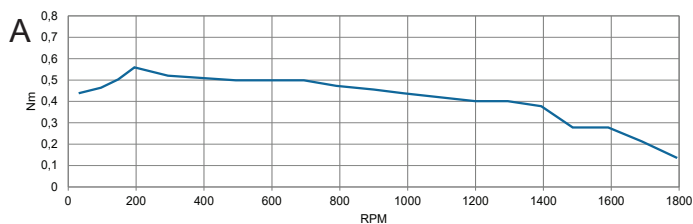
● = +Polarity

SPEED | TORQUE PERFORMANCE GRAPH PULL OUT

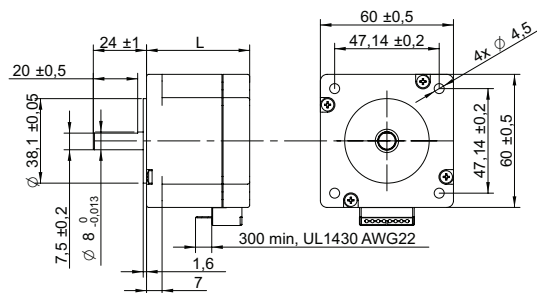
Graph	A	B	C	D
Supply voltage	V	48	48	48
Current phase	A	2.8	2.8	2.8

NOTES

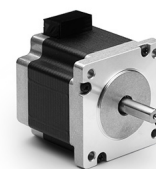
1. Full step no load.
2. 450 g load.
3. 20 mm from shaft.
4. AC, 1 second.
5. 500 V, DC.



DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

SHW60 - STEP ANGLE - CURRENT

Example: SHW6047-18-280

OPTIONS DRIVER AND POWER SUPPLY



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

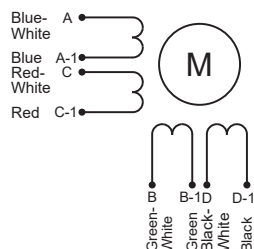
COMMON MOTOR DATA

Step angle	°	1.8	
Step angle accuracy ¹	%	± 5	
Shaft material		X8CrNiS18-9 SUS303	●
Bearing type		Ball bearing	●
Radial play ²	mm	0.02	
Axial play ²	mm	0.08	
Max. radial force ³	N	75	
Max. axial force	N	15	
Dielectric strength ⁴	V	600	
Insulation resistance ⁵	MΩ	100	
Operating temperature	°C	-20 to 50	●
Insulation class		Class B	
IP rating		IP30	●
Connection harness		UL 1430 AWG22 300 mm	●
Connector		Not in standard	●

MODEL-SPECIFIC MOTOR DATA

Model		SHW6047-18-280	SHW6056-18-280	SHW6067-18-280	SHW6088-18-280
Graph		A	B	C	D
Holding torque	Nm	1.1	1.7	2.1	3
Detent torque	Nm	0.05	0.07	0.09	0.12
Rotor inertia	gcm²	280	400	570	840
Current phase	A	2.8	2.8	2.8	2.8
Resistance phase	Ω	0.75	0.9	1.2	1.5
Inductance	mH	2	3.6	4.6	6.8
Length L	mm	47	56	67	88
Weight	kg	0.6	0.77	1.2	1.4

EXCITATION SEQUENCE TABLE



CW	A	C	B	D
1	●		●	
2		●	●	
3		●		●
4	●			●
1	●		●	

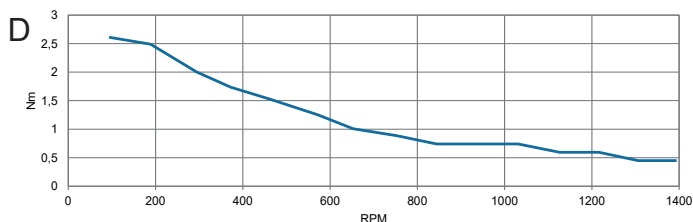
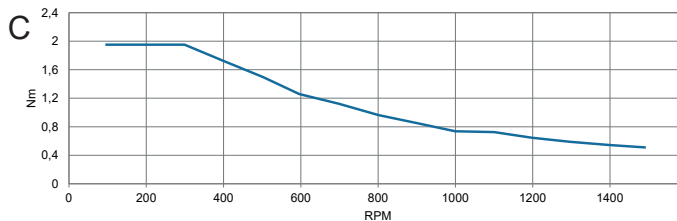
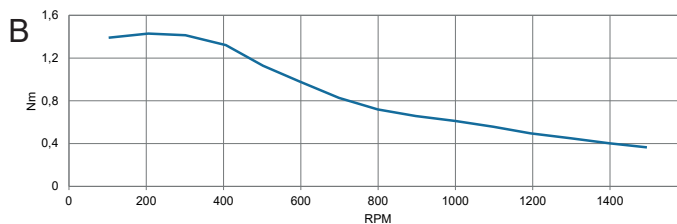
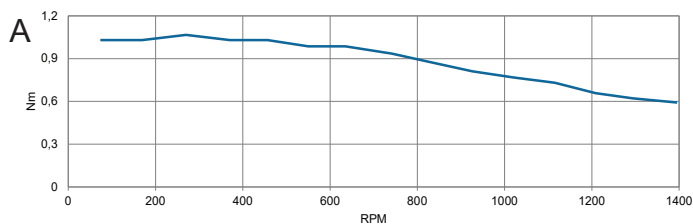
● = +Polarity

SPEED | TORQUE PERFORMANCE GRAPH PULL OUT

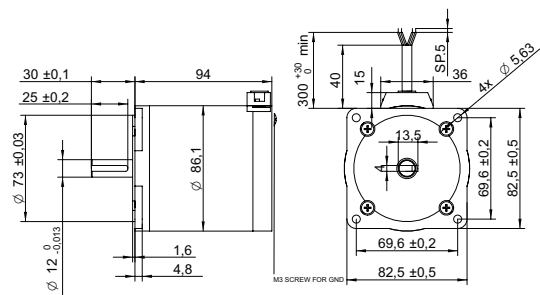
Graph		A	B	C	D
Supply voltage	V	48	48	48	48
Current phase	A	2.7	2.7	2.7	2.7

NOTES

1. Full step no load.
2. 450 g load.
3. 20 mm from shaft.
4. AC, 1 second.
5. 500 V, DC.



DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

SHW86

-

STEP ANGLE

-

CURRENT

Example: SHW8694-18-280

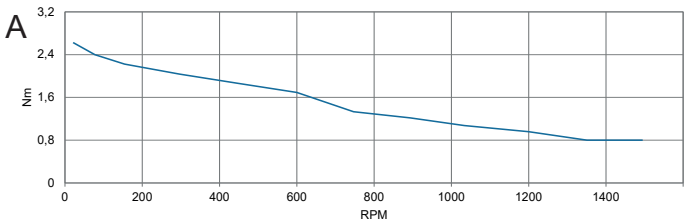
OPTIONS DRIVER AND POWER SUPPLY



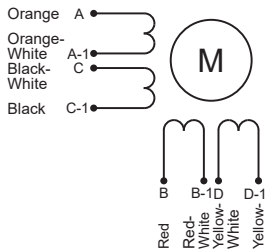
● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

COMMON MOTOR DATA			C
Step angle	°	1.8	
Step angle accuracy ¹	%	± 5	
Shaft material	X8CrNiS18-9 SUS303		●
Bearing type	Ball bearing		●
Radial play ²	mm	0.02	
Axial play ²	mm	0.08	
Max. radial force ³	N	220	
Max. axial force	N	60	
Dielectric strength ⁴	V	600	
Insulation resistance ⁵	MΩ	100	
Operating temperature	°C	-20 to 50	●
Insulation class	Class B		
IP rating	IP30		●
Connection harness	-		●
Connector	Not in standard		●

MODEL-SPECIFIC MOTOR DATA		
Model	SHW8694-18-280	
Graph	A	
Holding torque	Nm	4.8
Detent torque	Nm	0.18
Rotor inertia	gcm ²	1200
Current phase	A	2.8
Resistance phase	Ω	1.7
Inductance	mH	7.7
Length L	mm	94
Weight	kg	2.4



EXCITATION SEQUENCE TABLE



CW	A	C	B	D
1	●		●	
2		●	●	
3		●		●
4	●			●
1	●		●	

● = +Polarity

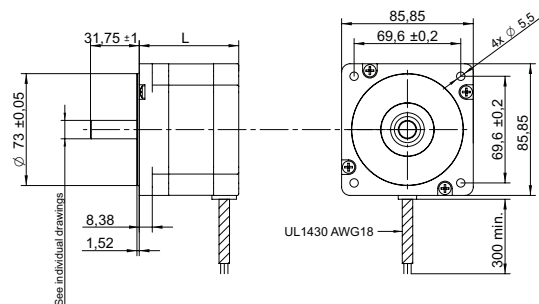
SPEED | TORQUE PERFORMANCE GRAPH PULL OUT

Graph	A	
Supply voltage	V	100
Current phase	A	4
Phase connection	Parallel connection	

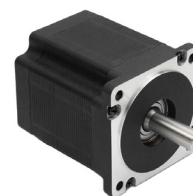
NOTES

1. Full step no load.
2. 450 g load.
3. 20 mm from shaft.
4. AC, 1 second.
5. 500 V, DC.

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

SHW86 - STEP ANGLE - CURRENT

Example: SHW8665-18-280

OPTIONS DRIVER AND POWER SUPPLY



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

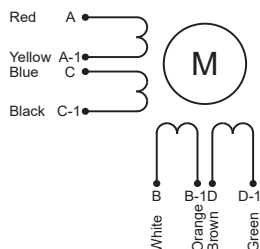
COMMON MOTOR DATA

Step angle	°	1.8	
Step angle accuracy ¹	%	± 5	
Shaft material		X8CrNiS18-9 SUS303	●
Bearing type		Ball bearing	●
Radial play ²	mm	0.02	
Axial play ²	mm	0.08	
Max. radial force ³	N	220	
Max. axial force	N	60	
Dielectric strength ⁴	V	600	
Insulation resistance ⁵	MΩ	100	
Operating temperature	°C	-20 to 50	●
Insulation class		Class B	
IP rating		IP30	●
Connection harness		UL 1430 AWG18 300 mm	●
Connector		Not in standard	●

MODEL-SPECIFIC MOTOR DATA

Model		SHW8665-18-400	SHW8680-18-600	SHW86118-18-600	SHW86156-18-600
Graph		A	B	C	D
Holding torque	Nm	3.5	4.5	8.5	12
Detent torque	Nm	0.08	0.12	0.24	0.36
Rotor inertia	gcm ²	1000	1400	2700	4000
Current phase	A	4	6	6	6
Resistance phase	Ω	0.65	0.33	0.5	0.63
Inductance	mH	3.9	3	6	8
Length L	mm	65	80	118	156
Weight	kg	1.7	2.3	3.8	5.3

EXCITATION SEQUENCE TABLE



CW	A	C	B	D
1	●		●	
2		●	●	
3		●		●
4	●			●
1	●		●	

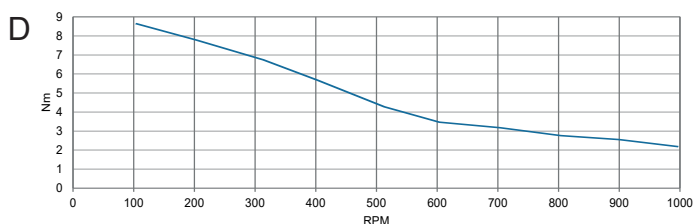
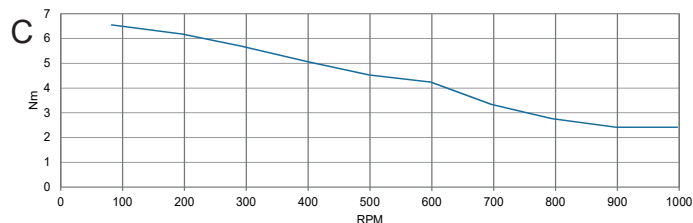
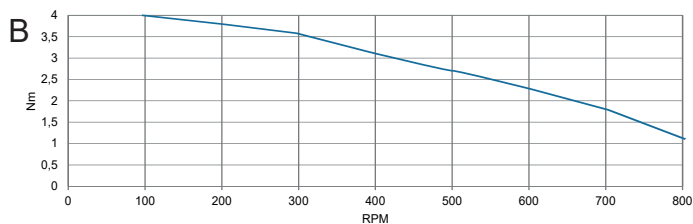
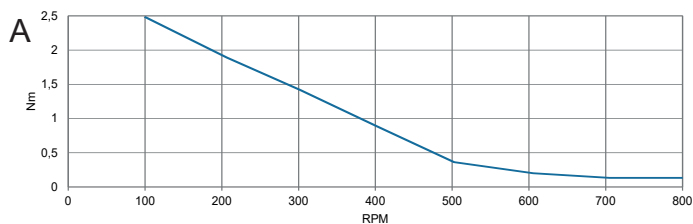
● = +Polarity

SPEED | TORQUE PERFORMANCE GRAPH PULL OUT

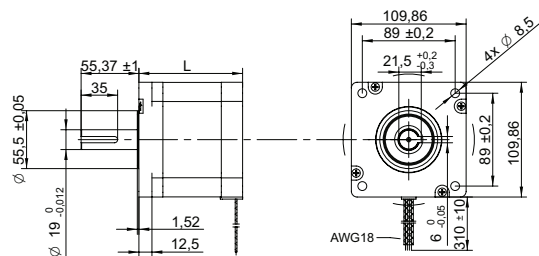
Graph		A	B	C	D
Supply voltage	V	48	48	48	48
Current phase	A	5.6	5.6	5.6	5.6
Phase connection		Parallel connection			

NOTES

1. Full step no load.
2. 450 g load.
3. 20 mm from shaft.
4. AC, 1 second.
5. 500 V, DC.



DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

SHW110

-

STEP ANGLE

-

CURRENT

Example: SHW11099-18-550

OPTIONS DRIVER AND POWER SUPPLY



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

COMMON MOTOR DATA

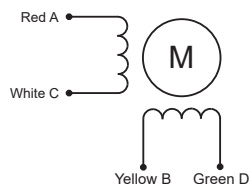
C

Step angle	°	1.8	
Step angle accuracy ¹	%	± 5	
Shaft material	X8CrNiS18-9 SUS303		●
Bearing type	Ball bearing		●
Radial play ²	mm	0.02	
Axial play ²	mm	0.08	
Max. radial force ³	N	330	
Max. axial force	N	100	
Dielectric strength ⁴	V	600	
Insulation resistance ⁵	MΩ	100	
Operating temperature	°C	-20 to 50	●
Insulation class	Class B		
IP rating	IP30		●
Connection harness	AWG18 310 mm		●
Connector	Not in standard		●

MODEL-SPECIFIC MOTOR DATA

Model		SHW11099-18-550	SHW110150-18-650	SHW110201-18-800
Graph		A	B	C
Holding torque	Nm	11	21	28
Detent torque	Nm	0.55	1.1	1.6
Rotor inertia	gcm ²	3000	5900	7500
Current phase	A	5.5	6.5	8
Resistance phase	Ω	0.7	0.72	0.67
Inductance	mH	9.8	12	12
Length L	mm	99	150	201
Weight	kg	5	8.4	12

EXCITATION SEQUENCE TABLE



CW	A	C	B	D
1	●		●	
2		●	●	
3		●		●
4	●			●
1	●		●	

● = +Polarity

SPEED | TORQUE PERFORMANCE GRAPH PULL OUT

Graph		A	B	C
Supply voltage	V	130	130	130
Current phase	A	5.6	6.50	8

NOTES

1. Full step no load.
2. 450 g load.
3. 20 mm from shaft.
4. AC, 1 second.
5. 500 V, DC.

