

# Hybrid Stepper Motors Hybride Schrittmotoren

NEMA format 17 / NEMA Format (42x42 mm)

## 42BYGH



### General Specifications / allgemeine Spezifikationen:

Step Accuracy .....	Schrittgenauigkeit .....	± 5%
Temperature Rise .....	Erwärmung .....	Δt = max. 80°C
Ambient Temperature Range.	Umgebungstemperatur ....	-20°C -- 50°C
Insulation Resistance .....	Isolationswiderstand .....	100MΩ min. 500V DC
Dielectric Strength .....	Spannungsfestigkeit .....	500V AC/1 min.

**Step Angle..... Schrittwinkel..... 0.9°**

### Electrical Specifications / elektrische Spezifikationen:

Model		Motor Length	Holding Torque	Lead Wire	Rated Current	Phase Resistance	Phase Inductance	Rotor Inertia	Detent Torque	Shaft Ø d	Motor Weight
Modell		Motor Länge	Halte-kraft	Anzahl Litzen	Nenn-strom	Widerstand Phase	Induktivität Phase	Masse-trägheit	Rast-moment	Achs-Ø d	Motor Gewicht
		(mm)	(N·cm)		(A)	(Ω)	(mH)	(g·cm <sup>2</sup> )	(N·cm)	(mm)	(kg)
42BYGH2100A	B	26	12	4	0.8	7.9	7.5	21	1.37	5	0.17
42BYGH2100A-02	B	26	11	4	0.5	10.3	11.5	21	1.37	5	0.17
42BYGH2100A1A	B	30	28	4	0.8	14.6	22.1	26	1.57	5	0.19
42BYGH2100B	B	34.1	14	4	1.0	4.7	4.9	34	1.96	5	0.22
42BYGH2100B-01	B	34.1	20	4	1.0	7.0	9.6	34	1.96	5	0.22
42BYGH2100C	B	40.1	28	4	1.0	4.6	8.7	54	2.16	5	0.28
42BYGH2100C-01A	B	40.1	34	4	0.8	17.6	41	54	2.16	5	0.28
42BYGH4100C	U	40.1	25	6	0.4	30	30	54	2.16	5	0.28
	B		35		0.28	60	120				
42BYGH2100D	B	44	34	4	1.0	6.3	9.8	61	2.45	5	0.32

**Step Angle..... Schrittwinkel..... 1.8°**

### Electrical Specifications / elektrische Spezifikationen:

Model		Motor Length	Holding Torque	Lead Wire	Rated Current	Phase Resistance	Phase Inductance	Rotor Inertia	Detent Torque	Shaft Ø d	Motor Weight
Modell		Motor Länge	Halte-kraft	Anzahl Litzen	Nenn-strom	Widerstand Phase	Induktivität Phase	Masse-trägheit	Rast-moment	Achs-Ø d	Motor Gewicht
		(mm)	(N·cm)		(A)	(Ω)	(mH)	(g·cm <sup>2</sup> )	(N·cm)	(mm)	(kg)
42BYGH250A	B	32	24	4	1.4	2.2	2.48	25	1.81	5	0.19
42BYGH450A	U	32	15	6	1.0	3.4	2.3	25	1.81	5	0.19
	B		21		0.7	6.8	9.2				
42BYGH250B	B	34	12	4	0.4	6.0	6.5	34	1.96	5	0.22
42BYGH250B-06	B	34	24	4	0.8	5.5	7.17	34	1.96	5	0.22
42BYGH450B-01	U	34	17	6	0.28	44	30	34	1.96	5	0.22
	B		24		0.2	88	120				
42BYGH450B-02	U	34	20	6	0.8	7.2	4.4	34	1.96	5	0.22
	B		28		0.6	14.4	17.6				
42BYGH250C	B	40	39	4	0.8	15.6	24.5	54	2.16	5	0.28

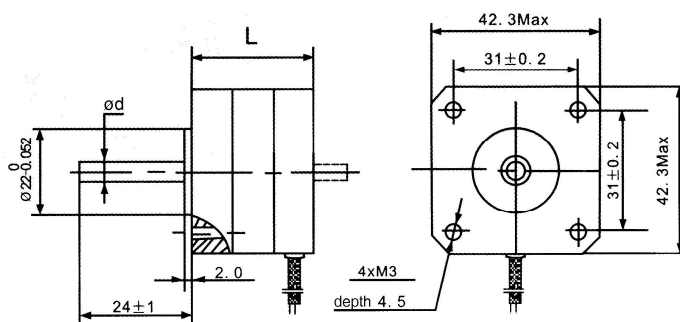
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Model		Motor Length	Holding Torque	Lead Wire	Rated Current	Phase Resistance	Phase Inductance	Rotor Inertia	Detent Torque	Shaft $\varnothing$ d	Motor Weight
Modell		Motor Länge	Halte-kraft	Anzahl Litzen	Nenn-strom	Widerstand/Phase	Induktivität/Phase	Masse-trägheit	Rast-moment	Achs- $\varnothing$ d	Motor Gewicht
		(mm)	(N·cm)		(A)	( $\Omega$ )	(mH)	(g·cm <sup>2</sup> )	(N·cm)	(mm)	(kg)
42BYGH250C-04	B	40	40	4	1.6	2.32	3.87	54	2.16	5	0.28
42BYGH250C-06	B	40	43	4	1.0	8.55	13	54	2.16	5	0.28
42BYGH250C-08	B	40	39	4	1.0	5.72	11.1	54	2.16	5	0.28
42BYGH450C	U	40	28	6	0.4	30	24	54	2.16	5	0.28
	B		39		0.28	60	96				
42BYGH450C-08	U	40	28	6	0.8	5.4	4.38	54	2.16	5	0.28
	B		39		0.6	10.8	17.5				
42BYGH250D-01	B	44	49	4	1.0	5.2	8.6	61	2.45	5	0.32
42BYGH250D-02	B	44	39	4	0.5	27	51	61	2.45	5	0.32
42BYGH250D-08	B	44	22	4	1.5	0.68	0.85	61	2.45	5	0.32
42BYGH250D-09	B	44	39	4	1.2	3.5	4.9	61	2.45	5	0.32
42BYGH450D	U	44	31	6	0.5	18.5	18.5	61	2.45	5	0.32
	B		44		0.35	37	74				
42BYGH450D-20	U	44	33	6	1.0	5.0	5.4	61	2.45	5	0.32
	B		47		0.7	10	21.6				
42BYGH450D-21	U	46.5	39	6	0.8	8.9	8.5	68	2.65	5	0.33
	B		55		0.6	17.8	34				
42BYGH450D-22	U	46.5	38	6	1.0	7.0	5.6	68	2.65	5	0.33
	B		53		0.7	14	22.4				
42BYGH250E-06	B	48	40	4	0.8	6.35	8.9	68	2.75	5	0.35
42BYGH250E-07	B	48	40	4	0.8	6.35	8.9	68	2.75	5	0.35
42BYGH450E-01	U	48	37	6	0.4	32	27	68	2.75	5	0.35
	B		52		0.28	64	108				
42BYGH450E-14	U	48	36	6	0.8	7.5	6.4	68	2.75	5	0.35
	B		51		0.6	15	25.6				
42BYGH450E-17	U	48	46	6	1.2	5.0	4.75	68	2.75	5	0.35
	B		65		0.8	10	19				
42BYGH250F	B	60	49	4	0.5	23	35.7	102	3.63	5	0.46
42BYGH450F	U	60	48	6	0.5	24	25	102	3.63	5	0.46
	B		68		0.35	48	100				
42BYGH450FA	U	60	48	6	0.5	24	25	102	3.63	5	0.46
	B		68		0.35	48	100				

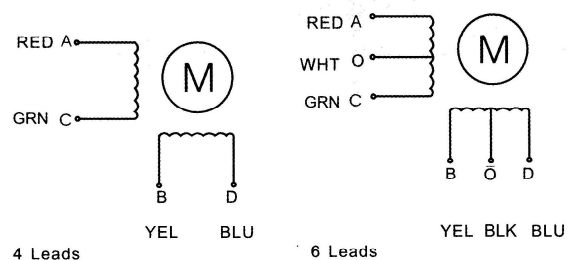
U = Unipolar Connection / unipolarer Anschluss  
 B = Bipolar Connection / bipolarer Anschluss

All stepper motors are available with double shaft. / Alle Motoren sind auf Kundenwunsch mit Doppelwelle lieferbar.

### Mechanical Dimensions / mechanische Abmessungen:



### Wiring Diagram / Verdrahtungsschema:



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