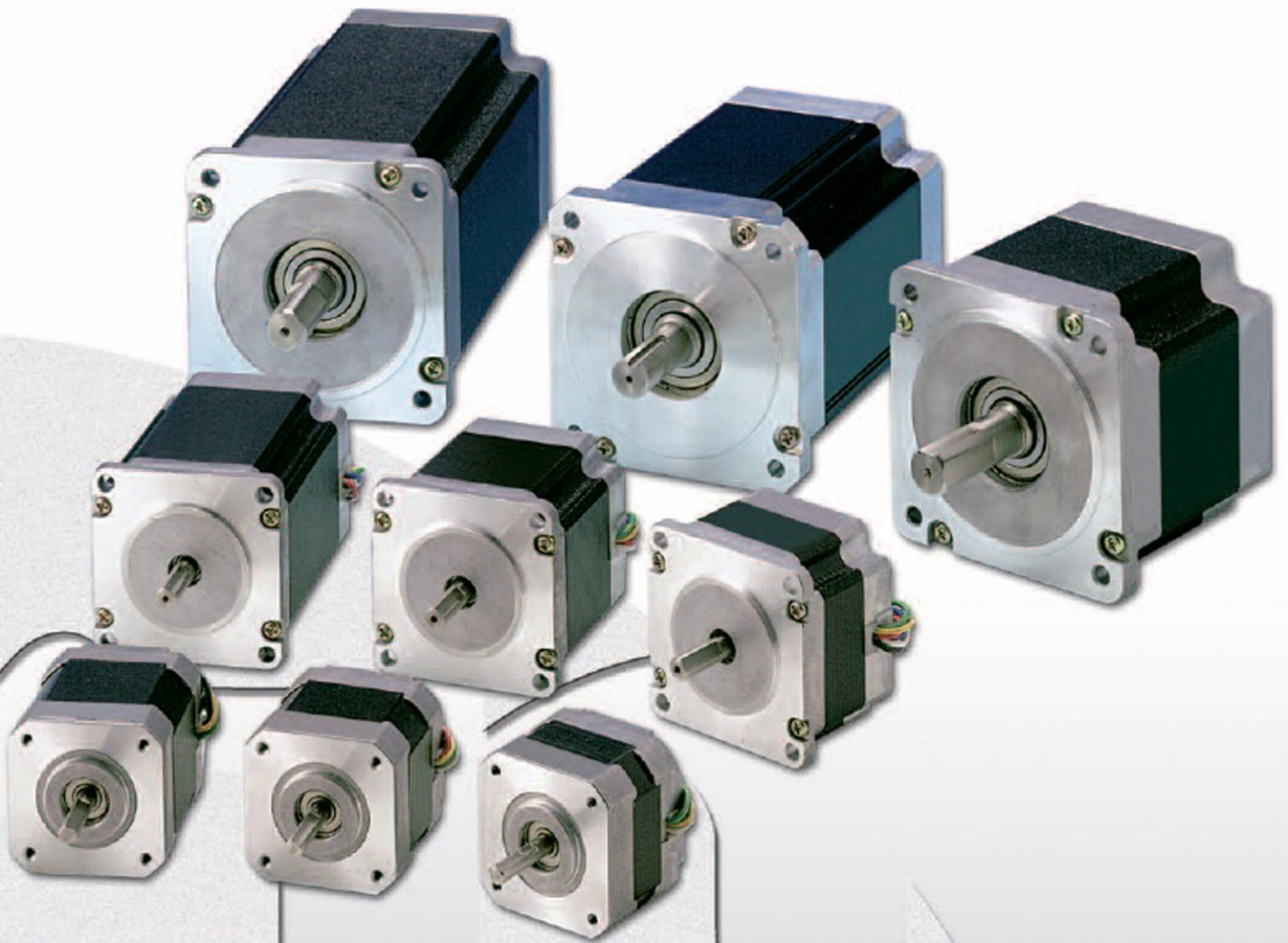


STEP MOTORS High Torque Versions

Samagawa

MOTORI PASSO-PASSO

Versioni Alta Coppia



INDUSTRIAL SOLUTIONS

FICOPA (Recinto Ferial Gipuzkoa)
AVDA. IPARRALDE, 43 - ROOM 3
20302 IRUN-GIPUZKOA (SPAIN)

☎ 00 34 646 211965
✉ RCC@RCCINDUSTRIAL.COM
📱 [RCCINDUSTRIAL](https://www.rccindustrial.com)

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garnet

MOTORI PASSO-PASSO ALTA COPPIA 2 FASI • 2-PHASE HIGH TORQUE

SPECIFICHE • SPECIFICATIONS

TAGLIA SIZE	CODICE PART NUMBER		LUNGH. LENGTH (mm)	RESISTENZA PER FASE RESISTANCE PER PHASE Ω /Fase		CORRENTE CURRENT A/Fase		COPPIA DI TENUTA HOLDING TORQUE Ncm		N° DI FILI N° OF WIRES	PAGINA PAGE
	monoalbero single shaft	doppio albero double shaft		unipolare unipolar	bipolare bipolar	unipolare unipolar	bipolare bipolar	unipolare unipolar	bipolare bipolar		
08 HT 1.8°	HG0830-V(F)0.4S	HG0830-V(F)0.4D	30	10	8.5	0.35	0.35 (2)	1.3	1.7	5 (4)	2
	HG0847-V(F)0.4S	HG0847-V(F)0.4D	46.5	20	16	0.35	0.35 (2)	2.4	3.2	5 (4)	2
11 HT 1.8°	HG1134-S1.5S	HG1134-S1.5D	33.5	0.7	1.4	1.5	1.1 (1)	4.0	5.2	6	4
	HG1148-S1.4S	HG1148-S1.4D	47.5	1.0	2.0	1.4	1.0 (1)	8.0	10.4	6	4
17 HT 1.8°	HG1733-S1.0S	HG1733-S1.0D	33	4.2	8.4	0.95	0.67 (1)	16	21	6	6
	HG1739-S1.2S	HG1739-S1.2D	39	3.3	6.6	1.2	0.85 (1)	26	33	6	6
	HG1747-S1.2S	HG1747-S1.2D	47	3.3	6.6	1.2	0.85 (1)	32	41	6	6
23 HT 0.9°	HG2239-E2.0S	HG2239-E2.0D	39	1.4	0.7	2.0	2.8 (2)	39	50	8	8
	HG2254-E2.0S	HG2254-E2.0D	54	1.8	0.9	2.0	2.8 (2)	90	117	8	8
	HG2276-E2.0S	HG2276-E2.0D	76	2.3	1.2	2.0	2.8 (2)	135	175	8	8
23 HT 1.8°	HG2339-E2.0S	HG2339-E2.0D	39	1.4	0.7	2.0	2.8 (2)	39	50	8	10
	HG2354-E2.0S	HG2354-E2.0D	54	1.8	0.9	2.0	2.8 (2)	90	117	8	10
	HG2376-E2.0S	HG2376-E2.0D	76	2.3	1.2	2.0	2.8 (2)	135	175	8	10
24 HT 1.8°	HG2444-E2.0S	HG2444-E2.0D	43.5	1.46	0.73	2.0	2.8 (2)	75	106	8	12
	HG2454-E2.0S	HG2454-E2.0D	54	2.0	1.0	2.0	2.8 (2)	135	175	8	12
	HG2465-E2.0S	HG2465-E2.0D	65	2.4	1.2	2.0	2.8 (2)	170	220	8	12
	HG2485-E2.0S	HG2485-E2.0D	85	2.98	1.49	2.0	2.8 (2)	220	310	8	12
34 HT 1.8°	HG3460-E4.1S	HG3460-E4.1D	59.5	0.55	0.28	4.1	6.0 (2)	200	282	8	14
	HG3479-E4.1S	HG3479-E4.1D	79	0.8	0.4	4.1	6.0 (2)	300	423	8	14
	HG34118-E4.1S	HG34118-E4.1D	117.5	1.03	0.56	4.1	6.0 (2)	560	790	8	14
	HG34156-E4.1S	HG34156-E4.1D	156	1.2	0.6	4.1	6.0 (2)	830	1170	8	14

(1) Collegamento serie • *Serie connection*

(2) Collegamento parallelo • *Parallel connection*

CODICI • PART NUMBERS

H G 23 39 - E 2.0 S □

T = Terminal Box • *Terminal Box*
XX = Versioni Speciali • *Custom Versions*

Albero / *Shaft Type*: S = Monoalbero • *Single Shaft*
D = Doppio Albero • *Double Shaft*
E = Con Encoder • *With Encoder*
R = Con Riduttore • *With Gear*

Corrente per Fase (A) • *Current per phase (A)*

Numero di fili • *Number of lead wires*: E = 8
S = 6
V = 5
F = 4

Lunghezza del motore (mm) • *Length of Motor (mm)*

Taglia del motore • *Size of Motor*

Motori passo-passo Garnet • *Garnet Step Motors*

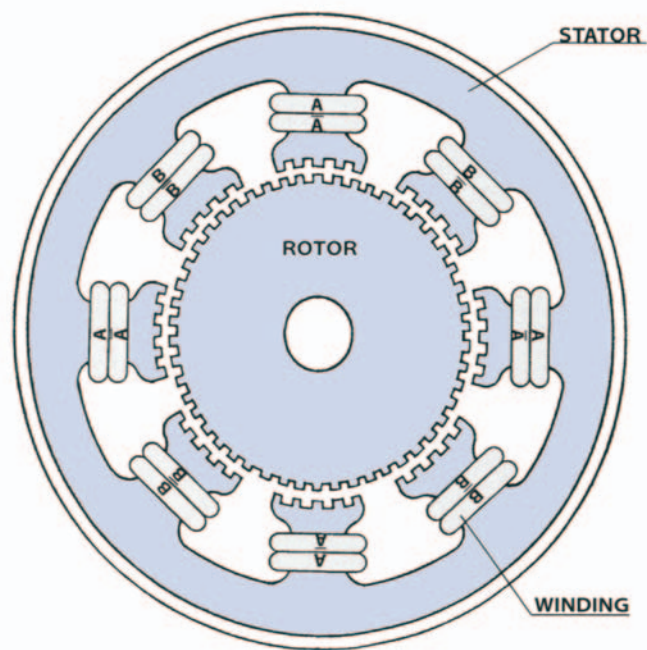
H = Alta Coppia • *High Torque*
Nessuna lettera • *No letter = Standard • Standard*

FUNZIONAMENTO ● OPERATION

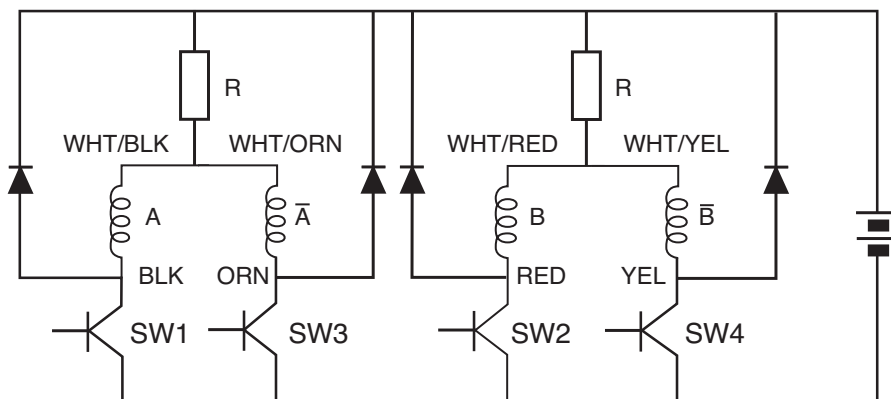
Il motore passo-passo riceve dall'elettronica di comando i segnali che, sotto forma di treno d'impulsi, energizzano sequenzialmente le fasi del motore e permettono il movimento del rotore grazie alla forza elettromagnetica indotta negli avvolgimenti dello statore. L'angolo di rotazione del rotore è proporzionale al numero di impulsi forniti in ingresso, e la sua velocità è determinata dalla frequenza degli stessi. L'angolo di passo meccanico, che per i motori Tamagawa è pari a $1,8^\circ$, è determinato dalla struttura meccanica propria del rotore e dello statore.

A step motor receives some pulse signals from external devices, pulls its rotor by the electro-magnetic force that is induced in the stator windings and rotates its output shaft by the angle proportional to the number of pulses. Its speed is defined by the frequency of input pulses and its rotational angle is defined by the amount of pulses, while the unit step angle is determined by the mechanical structure of a rotor and a stator.

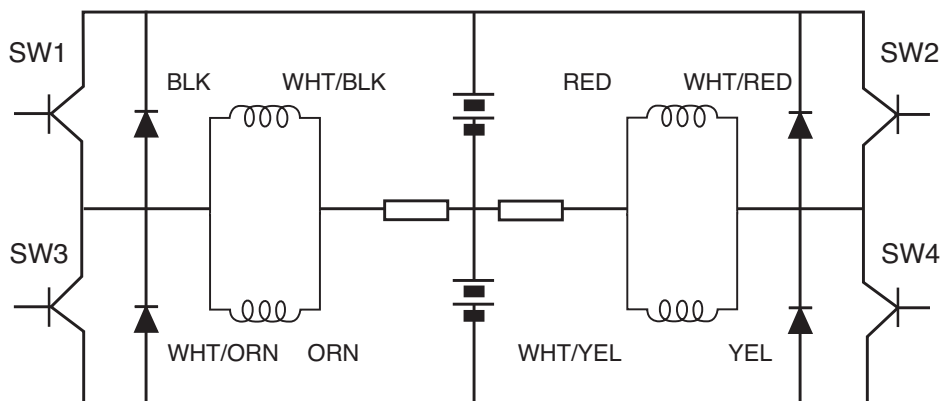
COSTRUZIONE ● CONSTRUCTION



CIRCUITO PILOTAGGIO UNIPOLARE ● UNIPOLAR DRIVE CIRCUIT



CIRCUITO PILOTAGGIO BIPOLARE ● BIPOLAR DRIVE CIRCUIT



TAGLIA 08 - 1,8° - ALTA COPPIA • SIZE 08 - 1.8° - HIGH TORQUE

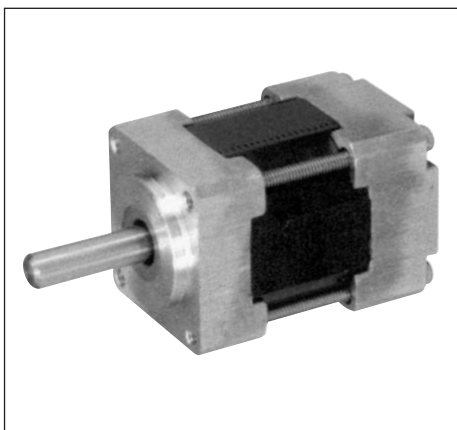
SPECIFICHE ● SPECIFICATIONS

HG0830 - □											
MODELLO • MODEL											
Monoalbero Single shaft	Doppio albero Double shaft	Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω/Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg
HG0830-V0.4S	HG0830-V0.4D	●		1.3	0.35	10	2.4	1.9	5	A	0.05
HG0830-F0.4S	HG0830-F0.4D		●	1.7	0.35 (2)	8.5	3.4	1.9	4	A	0.05

HG0847 - □											
MODELLO • MODEL											
Monoalbero Single shaft	Doppio albero Double shaft	Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω/Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg
HG0847-V0.4S	HG0847-V0.4D	●		2.4	0.35	20	4.6	4	5	B	0.085
HG0847-F0.4S	HG0847-F0.4D		●	3.2	0.35 (2)	16	7	4	4	B	0.085

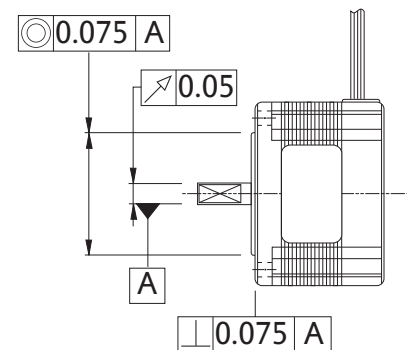
(2) Collegamento parallelo • Parallel connection

HG0830 -

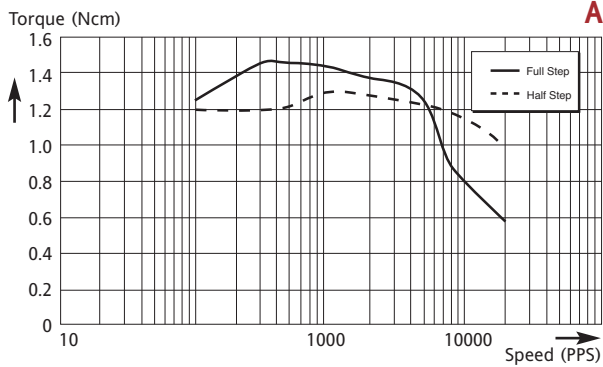


SPECIFICHE GENERALI ● GENERAL SPECIFICATIONS

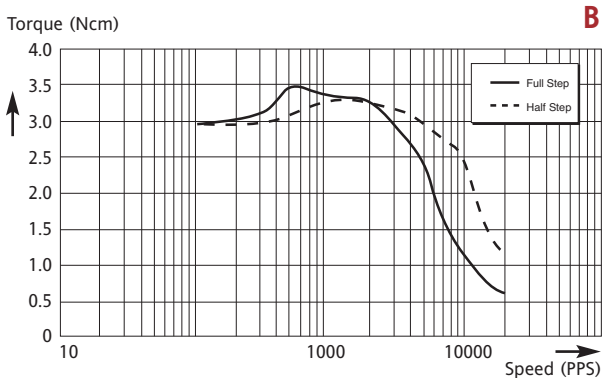
Items	Specifications
Shaft Runout	0.05mm Max T.I.R.
Shaft Radial Play	0.03mm Max (0.5 Kg)
Shaft Axial Play	0.075mm Max (1Kg)
Insulation Resistance	100M Ω (DC 500V)
Dielectric Strength	500 V AC (1 Minute)
Insulation Class	Class B (130°C)
Temperature Rise	80°C Max (2 Phase ON)
Working Temperature	-20°C ~ +50°C



CURVE ● CURVES

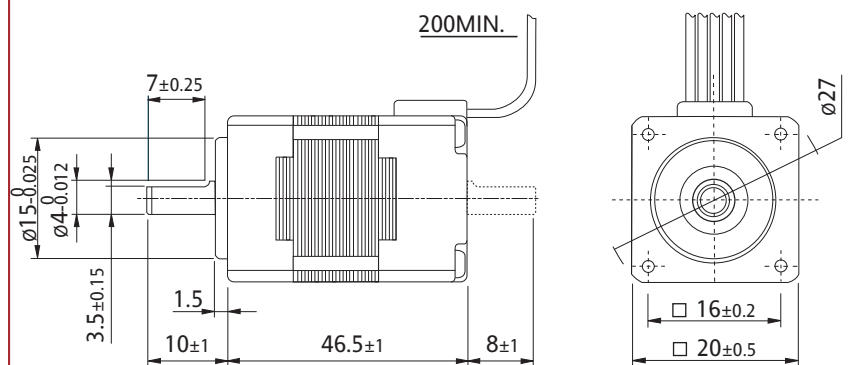
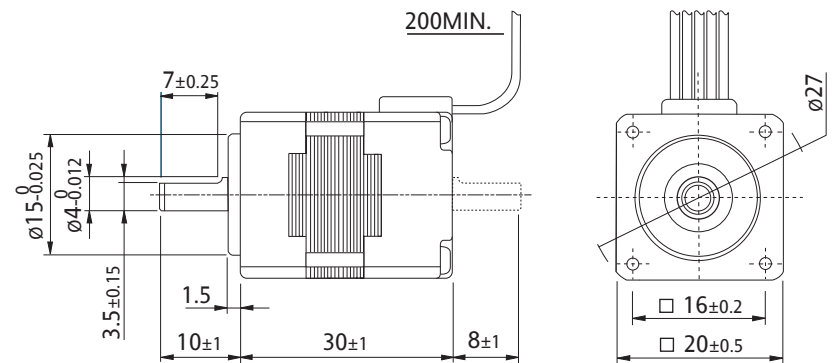


Azionamento bipolare passo intero e mezzo passo 24Vdc; 0,35A/Fase
Bipolar constant current Drive; DC24V; 0.35A/Phase half and full step



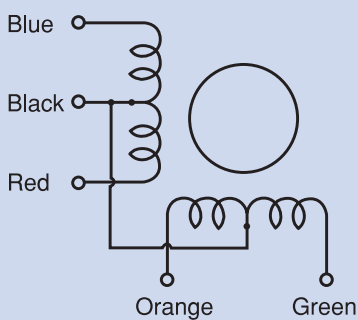
Azionamento bipolare passo intero e mezzo passo 24Vdc; 0,35A/Fase
Bipolar constant current Drive; DC24V; 0.35A/Phase half and full step

DIMENSIONI ● DIMENSIONS

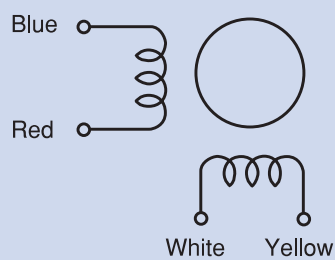


COLORE DEI FILI ● COLOR OF LEAD WIRES

5 Fili Unipolare 5 Leads Unipolar



4 Fili Bipolare 4 Leads Bipolar



TAGLIA 11 - 1,8° - ALTA COPPIA • SIZE 11 - 1.8° - HIGH TORQUE

SPECIFICHE • SPECIFICATIONS

HG1134 - □											
MODELLO • MODEL											
Monoalbero Single shaft	Doppio albero Double shaft	Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω/Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg
HG1134-S1.5S	HG1134-S1.5D	●		4.0	1.5	0.7	0.3	8	6	C	0.15
HG1134-S1.5S	HG1134-S1.5D		●	5.2	1.1 (1)	1.4	1.2	8	6	C	0.15

HG1148 - □											
MODELLO • MODEL											
Monoalbero Single shaft	Doppio albero Double shaft	Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω/Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg
HG1148-S1.4S	HG1148-S1.4D	●		8.0	1.4	1.0	0.55	18	6	D	0.25
HG1148-S1.4S	HG1148-S1.4D		●	10.4	1.0 (1)	2.0	2.2	18	6	D	0.25

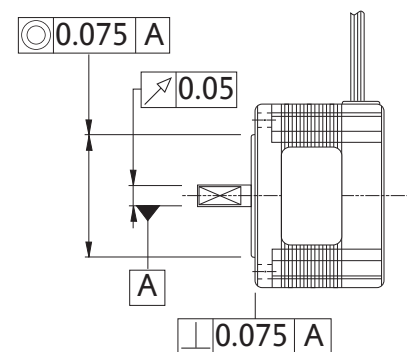
(1) Collegamento serie • Series connection

HG1134 -

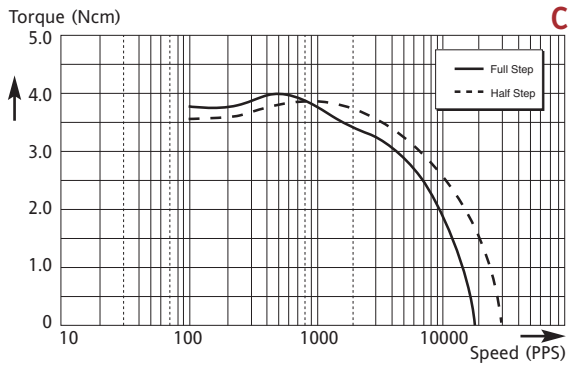


SPECIFICHE GENERALI • GENERAL SPECIFICATIONS

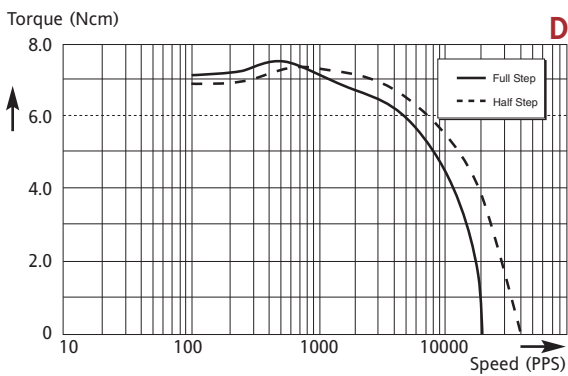
Items	Specifications
Shaft Runout	0.05mm Max T.I.R.
Shaft Radial Play	0.025mm Max (0.5 Kg)
Shaft Axial Play	0.075mm Max (1Kg)
Insulation Resistance	100M Ω (DC 500V)
Dielectric Strength	500 V AC (1 Minute)
Insulation Class	Class E (120°C)
Temperature Rise	80°C Max (2 Phase ON)
Working Temperature	-20°C ~ +50°C



CURVE ● CURVES

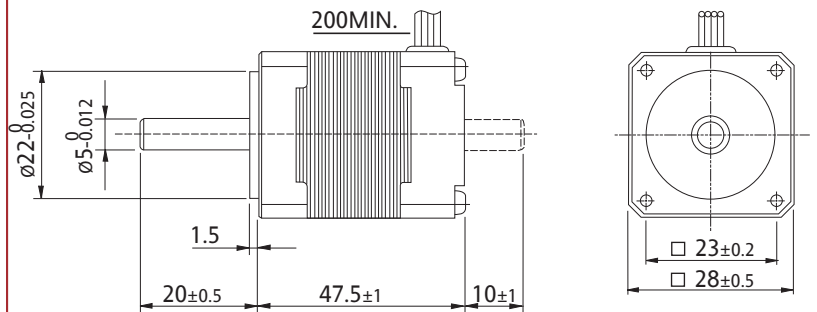
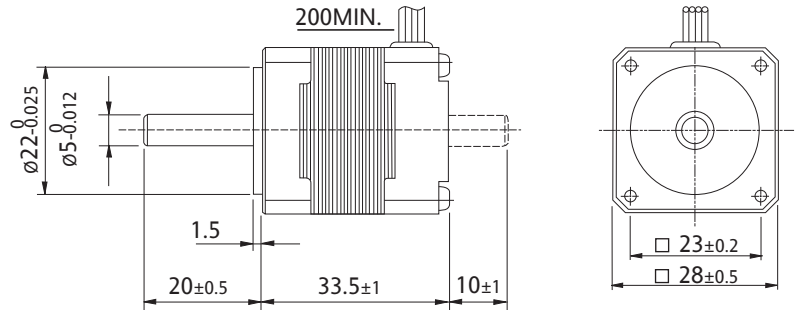


Azionamento unipolare passo intero e mezzo passo 24Vdc; 1,5A/Fase
Constant Current Drive; DC24V; 1.5A/Phase half and full step



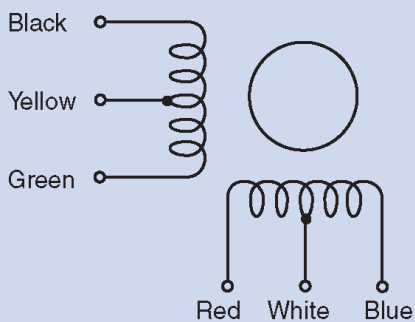
Azionamento unipolare passo intero e mezzo passo 24Vdc; 1,5A/Fase
Constant Current Drive; DC24V; 1.5A/Phase half and full step

DIMENSIONI ● DIMENSIONS

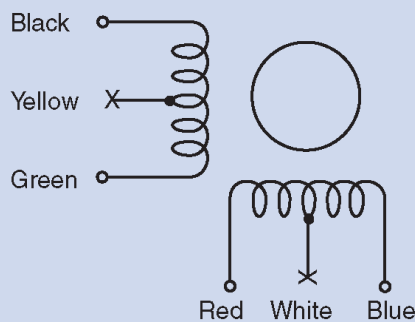


COLORE DEI FILI ● COLOR OF LEAD WIRES

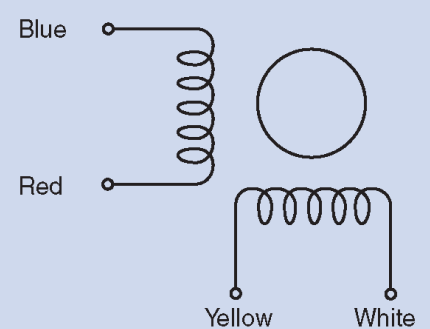
6 Fili Unipolare 6 Leads Unipolar



6 Fili Bipolare 6 Leads Bipolar



4 Fili Bipolare 4 Leads Bipolar



TAGLIA 17 - 1,8° - ALTA COPPIA • SIZE 17 - 1.8° - HIGH TORQUE

SPECIFICHE • SPECIFICATIONS

HG1733 - □

MODELLO • MODEL												
Monoalbero Single shaft	Doppio albero Double shaft	Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω /Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg	
HG1733-S1.0S	HG1733-S1.0D	●		16	0.95	4.2	2.8	35	6	E	0.2	
HG1733-S1.0S	HG1733-S1.0D		●	21	0.67 (1)	8.4	11.2	35	6	E	0.2	

HG1739 - □

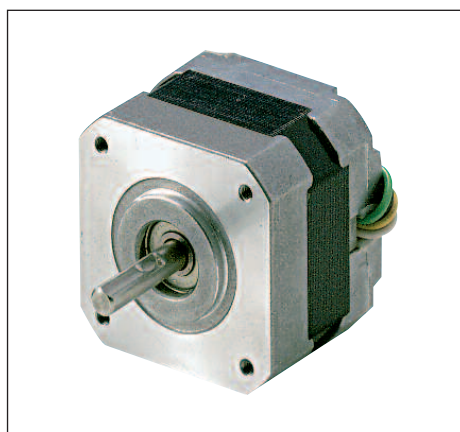
MODELLO • MODEL												
Monoalbero Single shaft	Doppio albero Double shaft	Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω /Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg	
HG1739-S1.2S	HG1739-S1.2D	●		26	1.2	3.3	3.6	54	6	F	0.25	
HG1739-S1.2S	HG1739-S1.2D		●	33	0.85 (1)	6.6	14.4	54	6	F	0.25	

HG1747 - □

MODELLO • MODEL												
Monoalbero Single shaft	Doppio albero Double shaft	Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω /Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg	
HG1747-S1.2S	HG1747-S1.2D	●		32	1.2	3.3	3.0	68	6	G	0.33	
HG1747-S1.2S	HG1747-S1.2D		●	41	0.85 (1)	6.6	12.0	68	6	G	0.33	

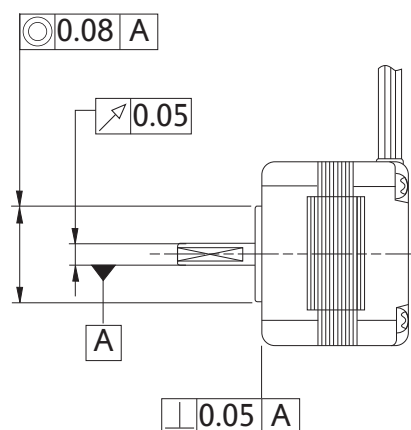
(1) Collegamento serie • Serie connection

HG1733 -

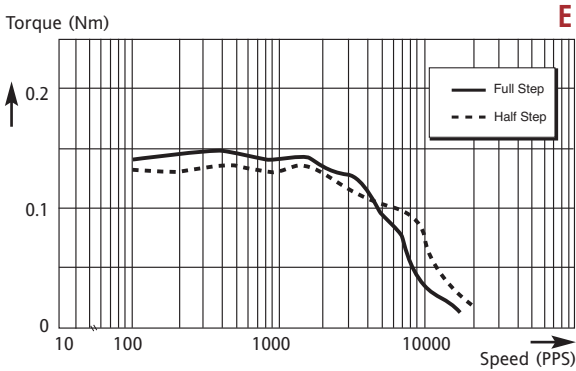


SPECIFICHE GENERALI • GENERAL SPECIFICATIONS

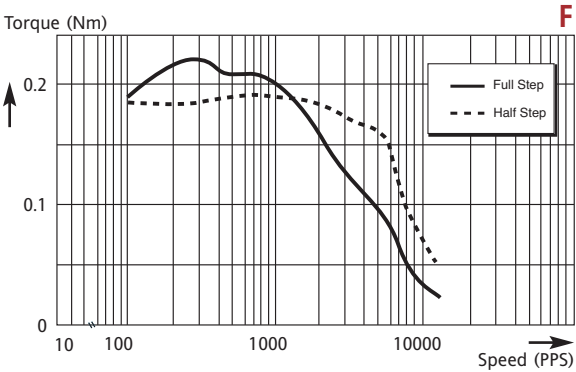
Items	Specifications
Shaft Runout	0.05mm Max T.I.R.
Shaft Radial Play	0.025mm Max (0.5 Kg)
Shaft Axial Play	0.075mm Max (1Kg)
Insulation Resistance	100M Ω (DC 500V)
Dielectric Strength	500 V AC (1 Minute)
Insulation Class	Class B (130°C)
Temperature Rise	80°C Max (2 Phase ON)
Working Temperature	-20°C ~ +50°C



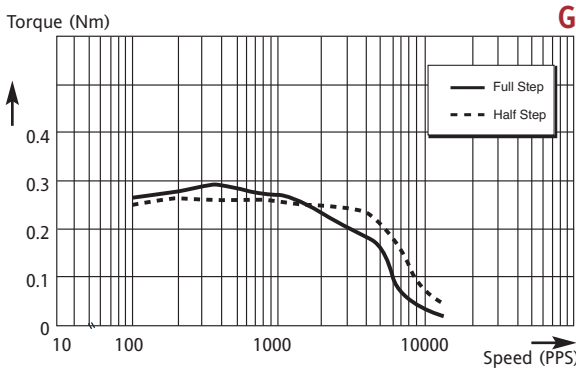
CURVE ● CURVES



Azionamento unipolare passo intero e mezzo passo 24Vdc; 0,95A/Phase
Constant Current Drive DC24V; 0.95A/Phase half and full step

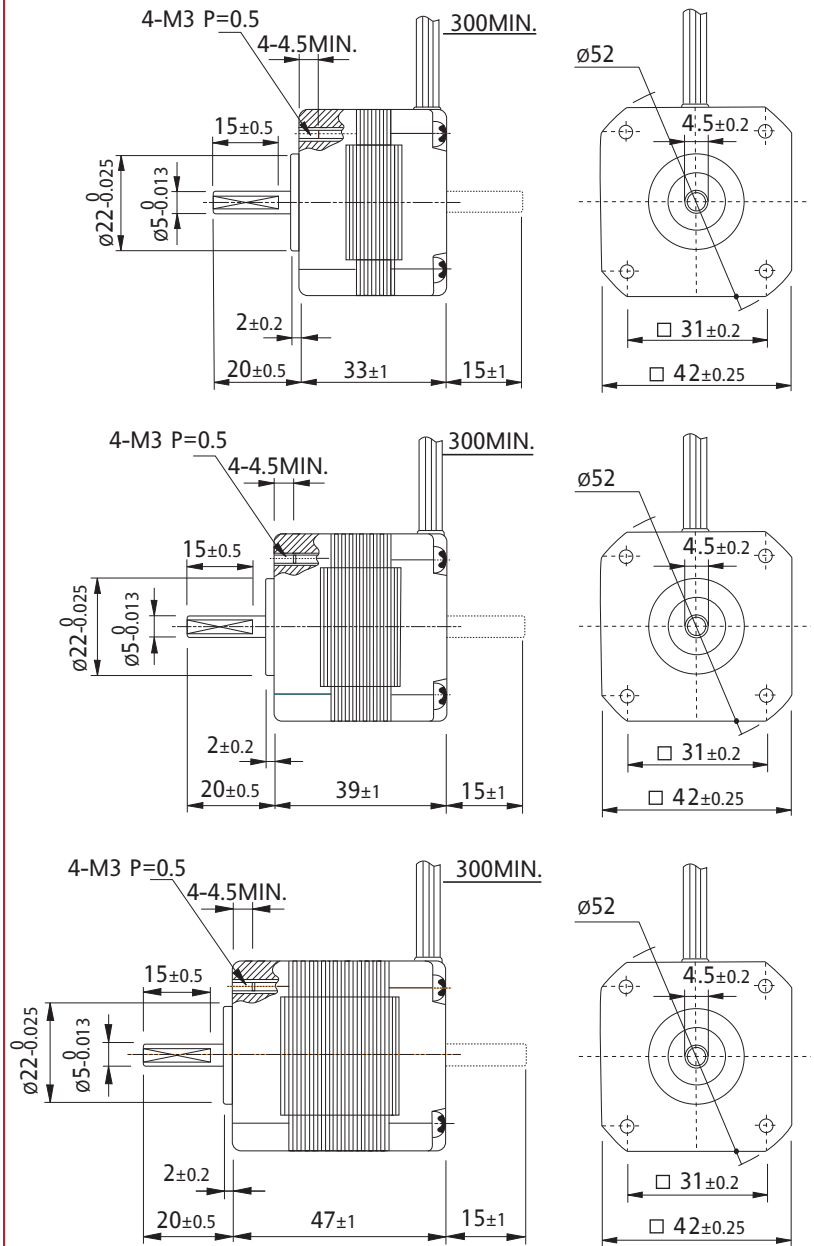


Azionamento unipolare passo intero e mezzo passo 24Vdc; 1,2A/Phase
Constant Current Drive DC24V; 1.2A/Phase half and full step



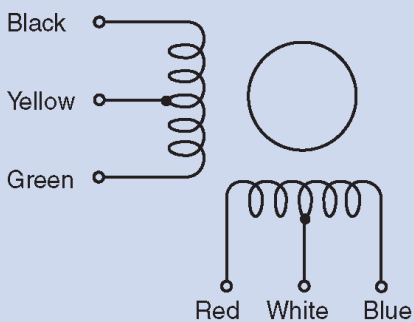
Azionamento unipolare passo intero e mezzo passo 24Vdc; 1,2A/Phase
Constant Current Drive DC24V; 1.2A/Phase half and full step

DIMENSIONI ● DIMENSIONS

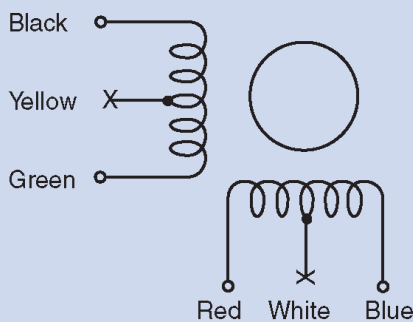


COLORE DEI FILI ● COLOR OF LEAD WIRES

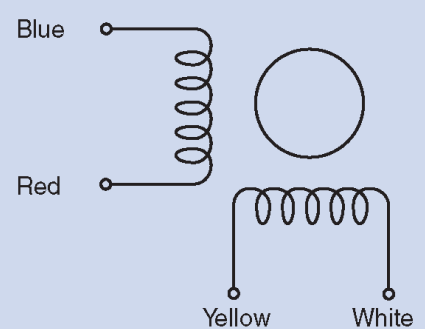
6 Fili Unipolare 6 Leads Unipolar



6 Fili Bipolare 6 Leads Bipolar



4 Fili Bipolare 4 Leads Bipolar



TAGLIA 23 - 0,9° - ALTA COPPIA • SIZE 23 - 0.9° - HIGH TORQUE

SPECIFICHE • SPECIFICATIONS

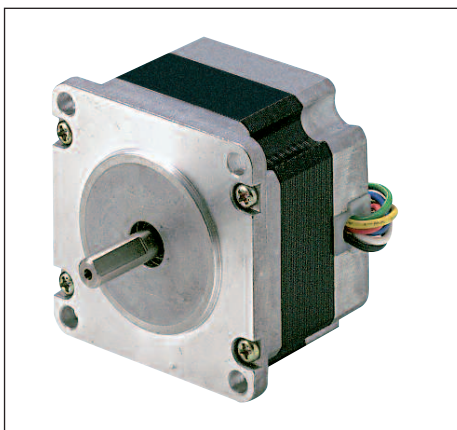
HG2239 - □											
MODELLO • MODEL											
Monoalbero Single shaft	Doppio albero Double shaft	Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω/Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg
HG2239-E2.0S	HG2239-E2.0D	●		44	2.0	1.4	1.8	120	8	H	0.45
HG2239-E2.0S	HG2239-E2.0D		●	62	2.8 (2)	0.7	1.8	120	8	H	0.45

HG2254 - □											
MODELLO • MODEL											
Monoalbero Single shaft	Doppio albero Double shaft	Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω/Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg
HG2254-E2.0S	HG2254-E2.0D	●		92	2.0	1.8	6.0	300	8	I	0.7
HG2254-E2.0S	HG2254-E2.0D		●	130	2.8 (2)	0.9	6.0	300	8	I	0.7

HG2276 - □											
MODELLO • MODEL											
Monoalbero Single shaft	Doppio albero Double shaft	Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω/Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg
HG2276-E2.0S	HG2276-E2.0D	●		142	2.0	2.3	8.9	480	8	L	1
HG2276-E2.0S	HG2276-E2.0D		●	200	2.8 (2)	1.2	8.9	480	8	L	1

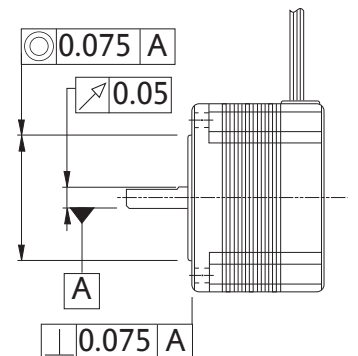
(2) Collegamento parallelo • Parallel connection

HG2239 -

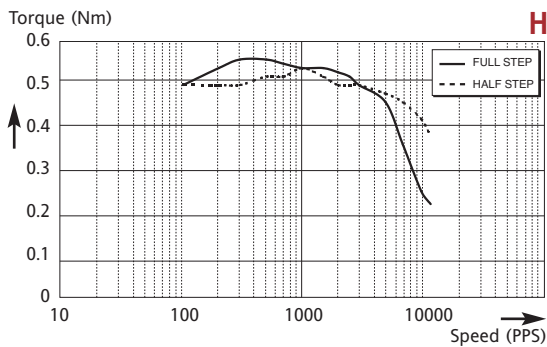


SPECIFICHE GENERALI • GENERAL SPECIFICATIONS

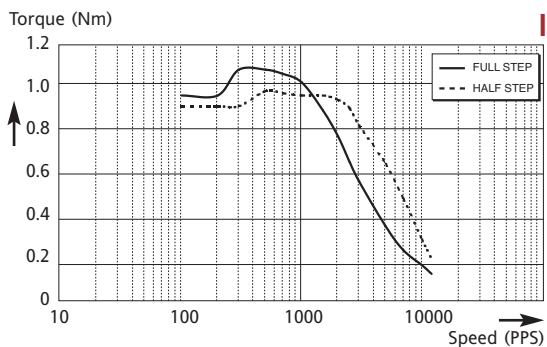
Items	Specifications
Shaft Runout	0.05mm Max T.I.R.
Shaft Radial Play	0.025mm Max (0.5 Kg)
Shaft Axial Play	0.075mm Max (1 Kg)
Insulation Resistance	100M Ω (DC 500V)
Dielectric Strength	500 V AC (1 Minute)
Insulation Class	Class B (130°C)
Temperature Rise	80°C Max (2 Phase ON)
Working Temperature	-20°C ~ +50°C



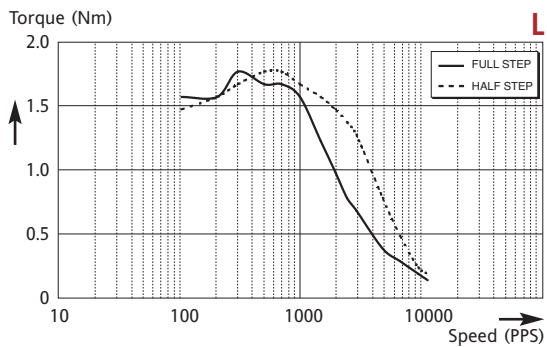
CURVE ● CURVES



Azionamento bipolare passo intero 2.8A/Fase; 48Vdc
Bipolar Constant Current Drive; full step; 2.8A/Phase; DC48V

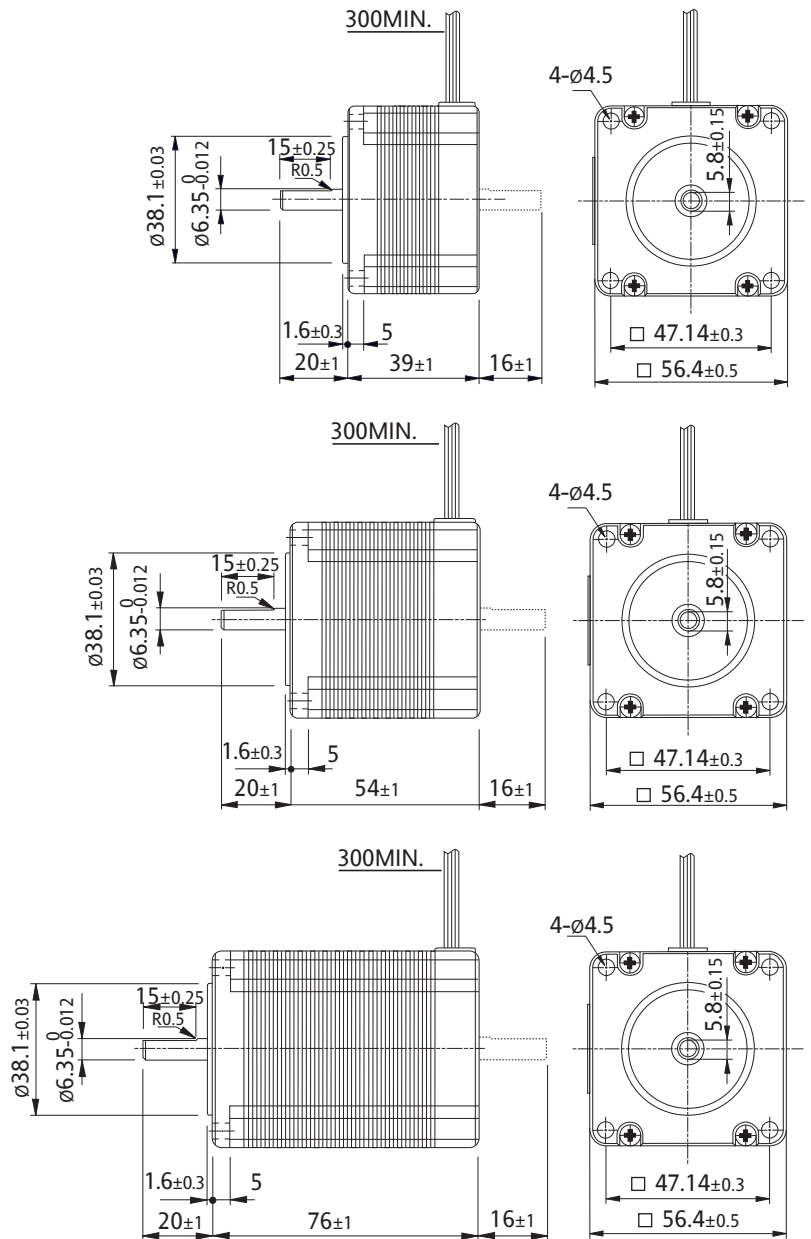


Azionamento bipolare passo intero 2.8A/Fase; 48Vdc
Bipolar Constant Current Drive; full step; 2.8A/Phase; DC48V



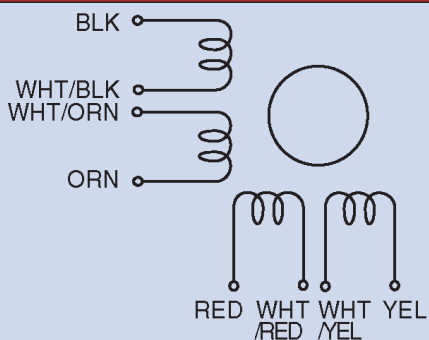
Azionamento bipolare passo intero 2.8A/Fase; 48Vdc
Bipolar Constant Current Drive; full step; 2.8A/Phase; DC48V

DIMENSIONI ● DIMENSIONS

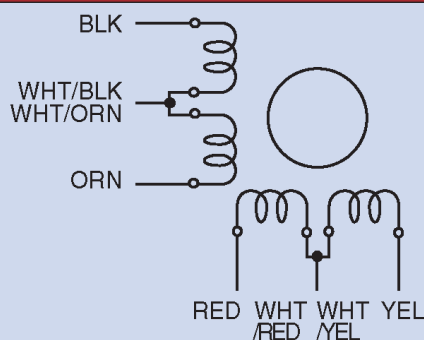


COLORE DEI FILI ● COLOR OF LEAD WIRES

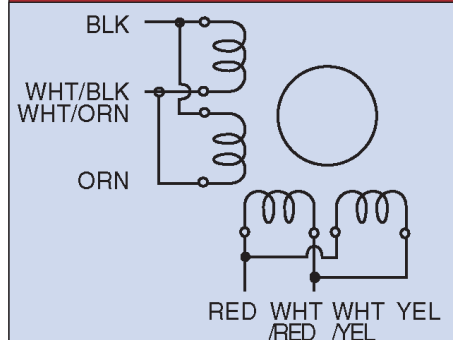
Motore 8 Fili 8 Leads Motor



Pilotaggio Unipolare Unipolar Drive



Pilotaggio Bipolare Bipolar Drive



TAGLIA 23 - 1,8° - ALTA COPPIA • SIZE 23 - 1.8° - HIGH TORQUE

SPECIFICHE • SPECIFICATIONS

HG2339 - □

MODELLO • MODEL		Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω /Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg
Monoalbero Single shaft	Doppio albero Double shaft										
HG2339-E2.0S	HG2339-E2.0D	●		39	2.0	1.4	1.4	120	8	M	0.45
HG2339-E2.0S	HG2339-E2.0D		●	50	2.8 (2)	0.7	1.4	120	8	M	0.45

HG2354 - □

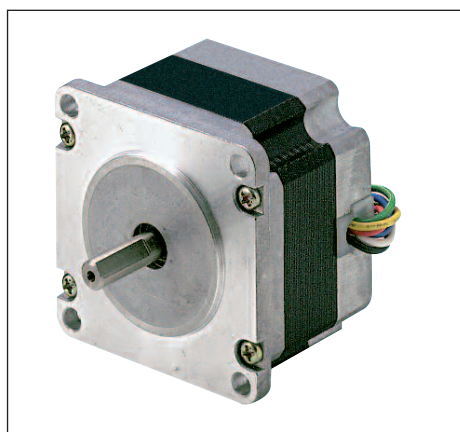
MODELLO • MODEL		Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω /Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg
Monoalbero Single shaft	Doppio albero Double shaft										
HG2354-E2.0S	HG2354-E2.0D	●		90	2.0	1.8	2.5	260	8	N	0.7
HG2354-E2.0S	HG2354-E2.0D		●	117	2.8 (2)	0.9	2.5	260	8	N	0.7

HG2376 - □

MODELLO • MODEL		Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω /Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg
Monoalbero Single shaft	Doppio albero Double shaft										
HG2376-E2.0S	HG2376-E2.0D	●		135	2.0	2.3	3.6	430	8	O	1
HG2376-E2.0S	HG2376-E2.0D		●	175	2.8 (2)	1.2	3.6	430	8	O	1

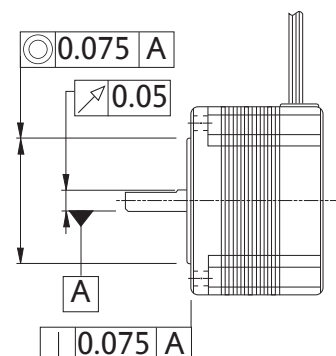
(2) Collegamento parallelo • Parallel connection

HG2339 -

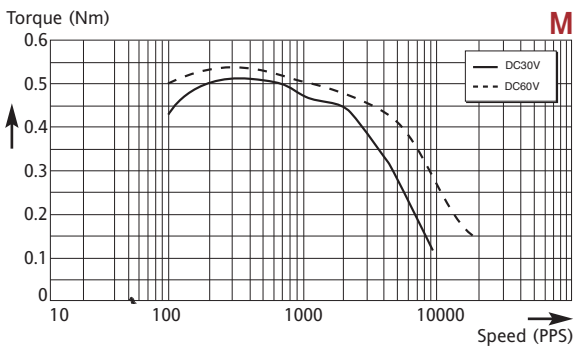


SPECIFICHE GENERALI • GENERAL SPECIFICATIONS

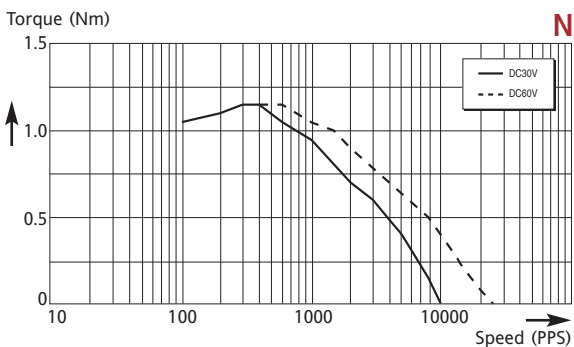
Items	Specifications
Shaft Runout	0.05mm Max T.I.R.
Shaft Radial Play	0.025mm Max (0.45 Kg)
Shaft Axial Play	0.075mm Max (0.45 Kg)
Insulation Resistance	100M Ω (DC 500V)
Dielectric Strength	500 V AC (1 Minute)
Insulation Class	Class B (130°C)
Temperature Rise	80°C Max (2 Phase ON)
Working Temperature	-20°C ~ +50°C



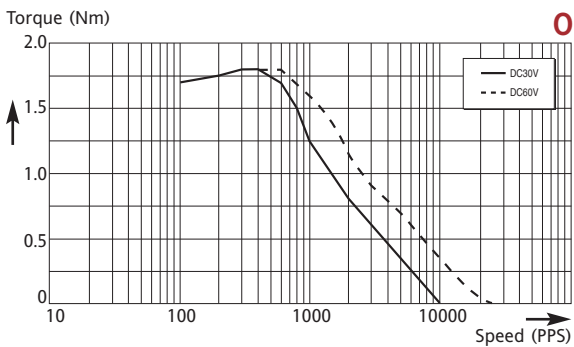
CURVE ● CURVES



Azionamento bipolare passo intero 2,8A/Fase
Bipolar Constant Current Drive; full step; 2.8A/Phase

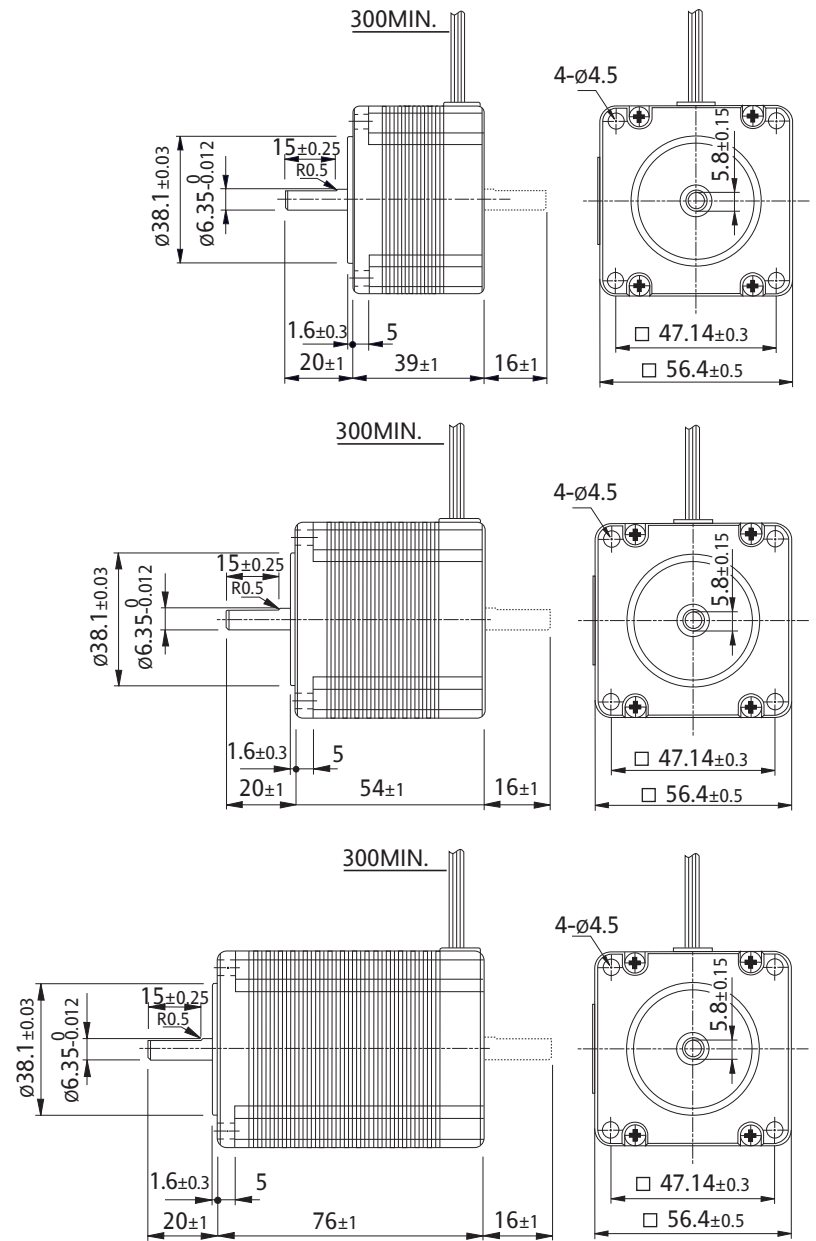


Azionamento bipolare passo intero 2,8A/Fase
Bipolar Constant Current Drive; full step; 2.8A/Phase



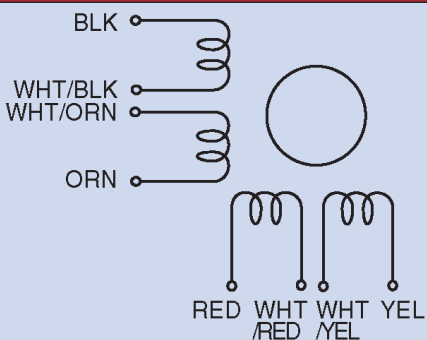
Azionamento bipolare passo intero 2,8A/Fase
Bipolar Constant Current Drive; full step; 2.8A/Phase

DIMENSIONI ● DIMENSIONS

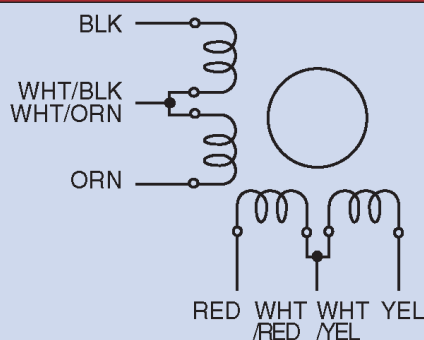


COLORE DEI FILI ● COLOR OF LEAD WIRES

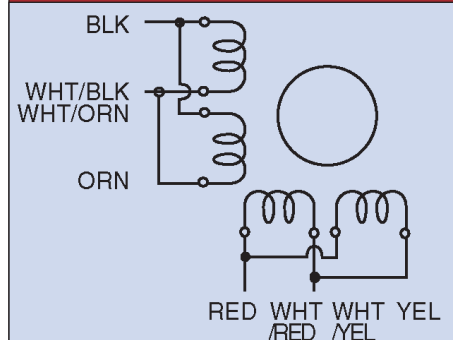
Motore 8 Fili 8 Leads Motor



Pilotaggio Unipolare Unipolar Drive



Pilotaggio Bipolare Bipolar Drive



TAGLIA 24 - 1,8° - ALTA COPPIA • SIZE 24 - 1.8° - HIGH TORQUE

SPECIFICHE ● SPECIFICATIONS

HG2444 - □											
MODELLO • MODEL											
Monoalbero Single shaft	Doppio albero Double shaft	Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω/Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg
HG2444-E2.0S	HG2444-E2.0D	●		75	2.0	1.46	1.8	280	8	P	0.6
HG2444-E2.0S	HG2444-E2.0D		●	106	2.8 (2)	0.73	1.8	280	8	P	0.6

HG2454 - □											
MODELLO • MODEL											
Monoalbero Single shaft	Doppio albero Double shaft	Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω/Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg
HG2454-E2.0S	HG2454-E2.0D	●		135	2.0	2.0	3.05	450	8	Q	0.85
HG2454-E2.0S	HG2454-E2.0D		●	175	2.8 (2)	1.0	3.05	450	8	Q	0.85

HG2465 - □											
MODELLO • MODEL											
Monoalbero Single shaft	Doppio albero Double shaft	Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω/Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg
HG2465-E2.0S	HG2465-E2.0D	●		170	2.0	2.4	3.54	570	8	R	1.1
HG2465-E2.0S	HG2465-E2.0D		●	220	2.8 (2)	1.2	3.54	570	8	R	1.1

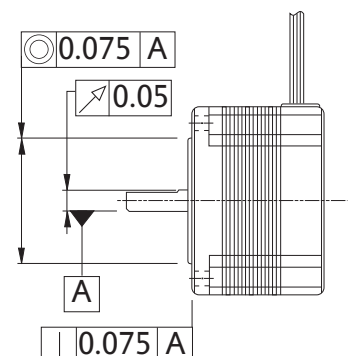
HG2485 - □											
MODELLO • MODEL											
Monoalbero Single shaft	Doppio albero Double shaft	Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω/Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg
HG2485-E2.0S	HG2485-E2.0D	●		220	2.0	2.98	5.7	900	8	S	1.45
HG2485-E2.0S	HG2485-E2.0D		●	310	2.8 (2)	1.49	5.7	900	8	S	1.45

HG2454 -

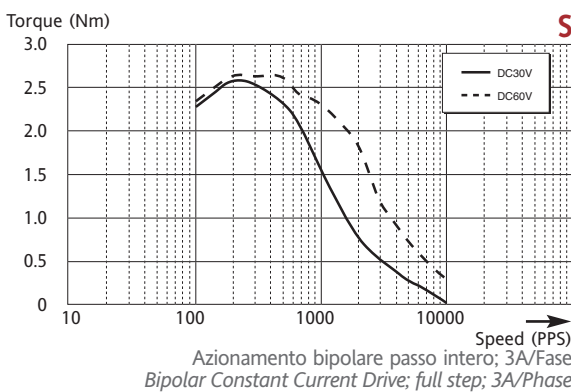
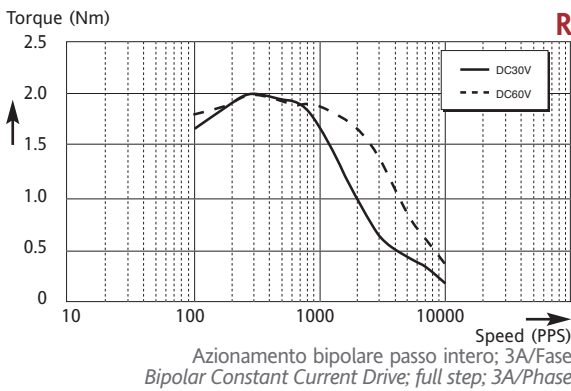
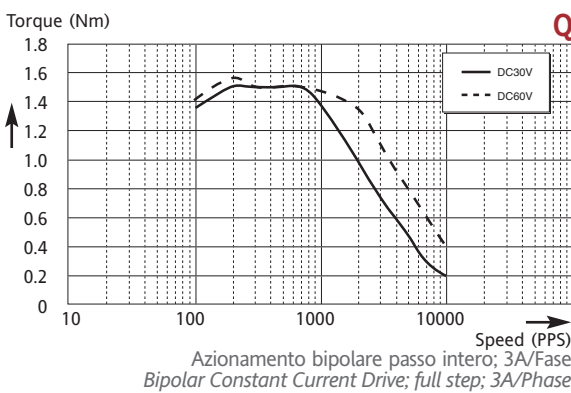
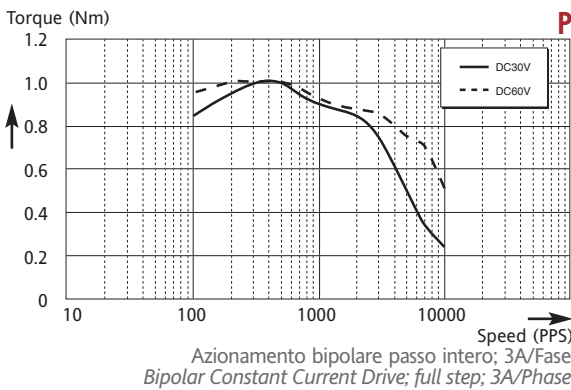


SPECIFICHE GENERALI ● GENERAL SPECIFICATIONS

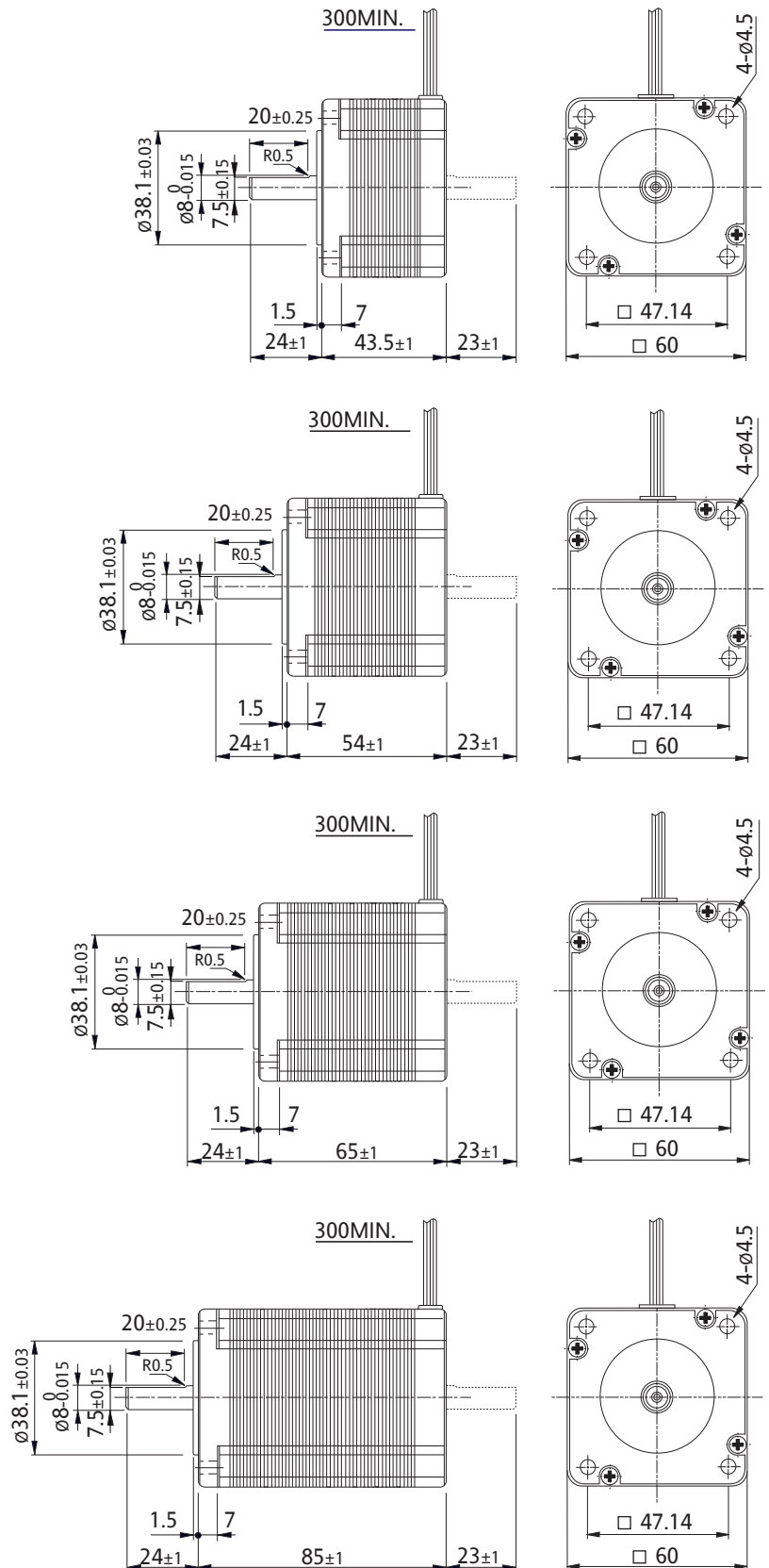
Items	Specifications
Shaft Runout	0.05mm Max T.I.R.
Shaft Radial Play	0.025mm Max (0.5 Kg)
Shaft Axial Play	0.075mm Max (1Kg)
Insulation Resistance	100M Ω (DC 500V)
Dielectric Strength	500 V AC (1 Minute)
Insulation Class	Class B (130°C)
Temperature Rise	80°C Max (2 Phase ON)
Working Temperature	-20°C ~ +50°C



CURVE ● CURVES



DIMENSIONI ● DIMENSIONS



COLORE DEI FILI ● COLOR OF LEAD WIRES

Vedi motori taglia 23 pag. 9 ● See size 23 motors page 9

TAGLIA 34 - 1,8° - ALTA COPPIA • SIZE 34 - 1.8° - HIGH TORQUE

SPECIFICHE • SPECIFICATIONS

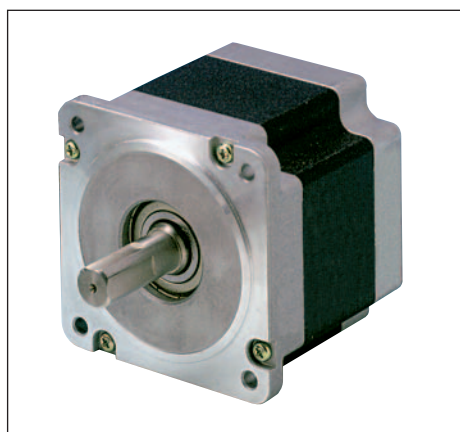
HG3460 - □											
MODELLO • MODEL											
Monoalbero Single shaft	Doppio albero Double shaft	Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω/Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg
HG3460-E4.1S	HG3460-E4.1D	●		200	4.1	0.55	1.9	1100	8	T	0.2
HG3460-E4.1S	HG3460-E4.1D		●	282	6.0 (2)	0.28	1.9	1100	8	T	0.2

HG3479 - □											
MODELLO • MODEL											
Monoalbero Single shaft	Doppio albero Double shaft	Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω/Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg
HG3479-E4.1S	HG3479-E4.1D	●		300	4.1	0.8	2.6	1600	8	U	2.5
HG3479-E4.1S	HG3479-E4.1D		●	423	6.0 (2)	0.4	2.6	1600	8	U	2.5

HG34118 - □											
MODELLO • MODEL											
Monoalbero Single shaft	Doppio albero Double shaft	Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω/Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg
HG34118-E4.1S	HG34118-E4.1D	●		560	4.1	1.03	4.1	3100	8	V	4
HG34118-E4.1S	HG34118-E4.1D		●	790	6.0 (2)	0.56	4.1	3100	8	V	4

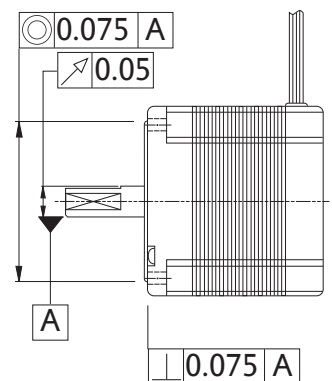
HG34156 - □											
MODELLO • MODEL											
Monoalbero Single shaft	Doppio albero Double shaft	Unipolare Unipolar	Bipolare Bipolar	Coppia di tenuta Holding Torque Ncm	Corrente Current A/Fase	Resistenza per Fase Resistance per Phase Ω/Fase	Induttanza per Fase Inductance per Phase mH/Fase	Inerzia del rotore Rotor Inertia g-cm ²	Numero di fili Number of lead wires	Curve di coppia Pull-out torque curves	Peso Weight Kg
HG34156-E4.1S	HG34156-E4.1D	●		830	4.1	1.2	5.6	4700	8	Z	5.3
HG34156-E4.1S	HG34156-E4.1D		●	1170	6.0 (2)	0.6	5.6	4700	8	Z	5.3

HG3479 -

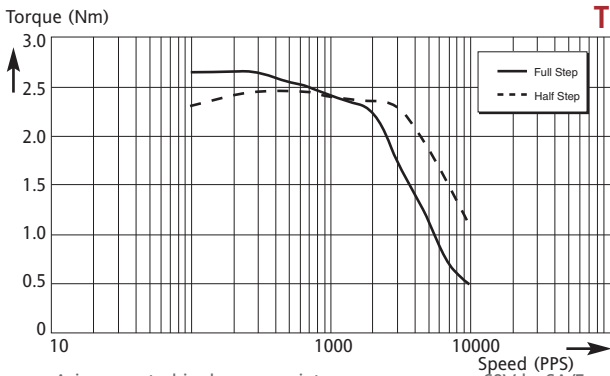


SPECIFICHE GENERALI • GENERAL SPECIFICATIONS

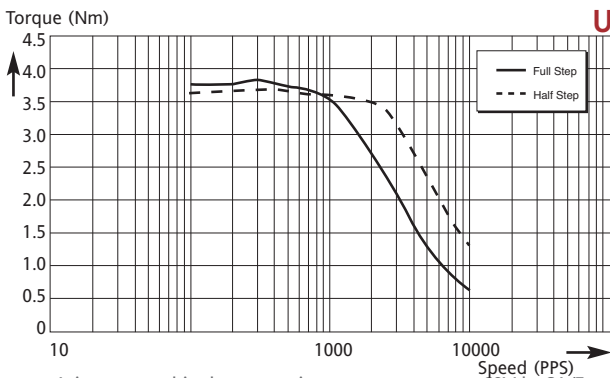
Items	Specifications
Shaft Runout	0.05mm Max T.I.R.
Shaft Radial Play	0.025mm Max (0.5 Kg)
Shaft Axial Play	0.075mm Max (1 Kg)
Insulation Resistance	100M Ω (DC 500V)
Dielectric Strength	500 V AC (1 Minute)
Insulation Class	Class B (130°C)
Temperature Rise	80°C Max (2 Phase ON)
Working Temperature	-20°C ~ +50°C



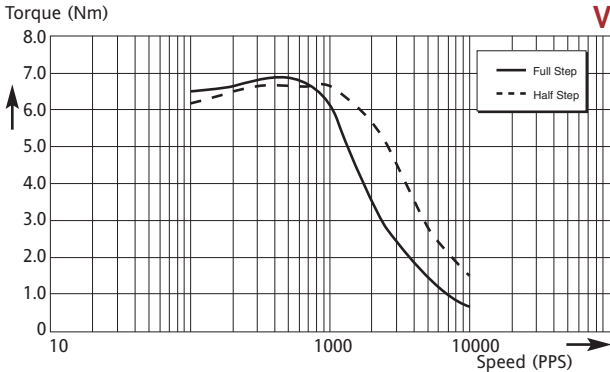
CURVE ● CURVES



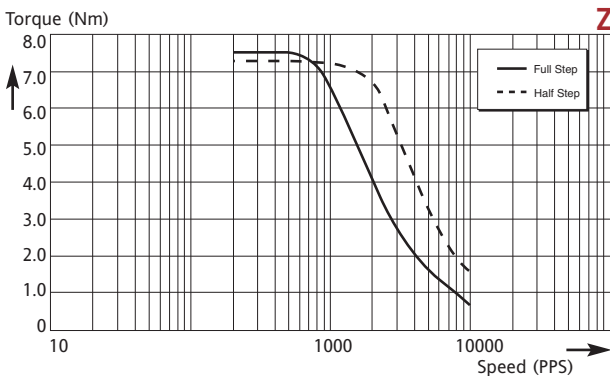
Azionamento bipolare passo intero e mezzo passo 60Vdc; 6A/Fase
Bipolar Constant Current Drive DC60V; 6A/Phase half and full step



Azionamento bipolare passo intero e mezzo passo 60Vdc; 6A/Fase
Bipolar Constant Current Drive DC60V; 6A/Phase half and full step

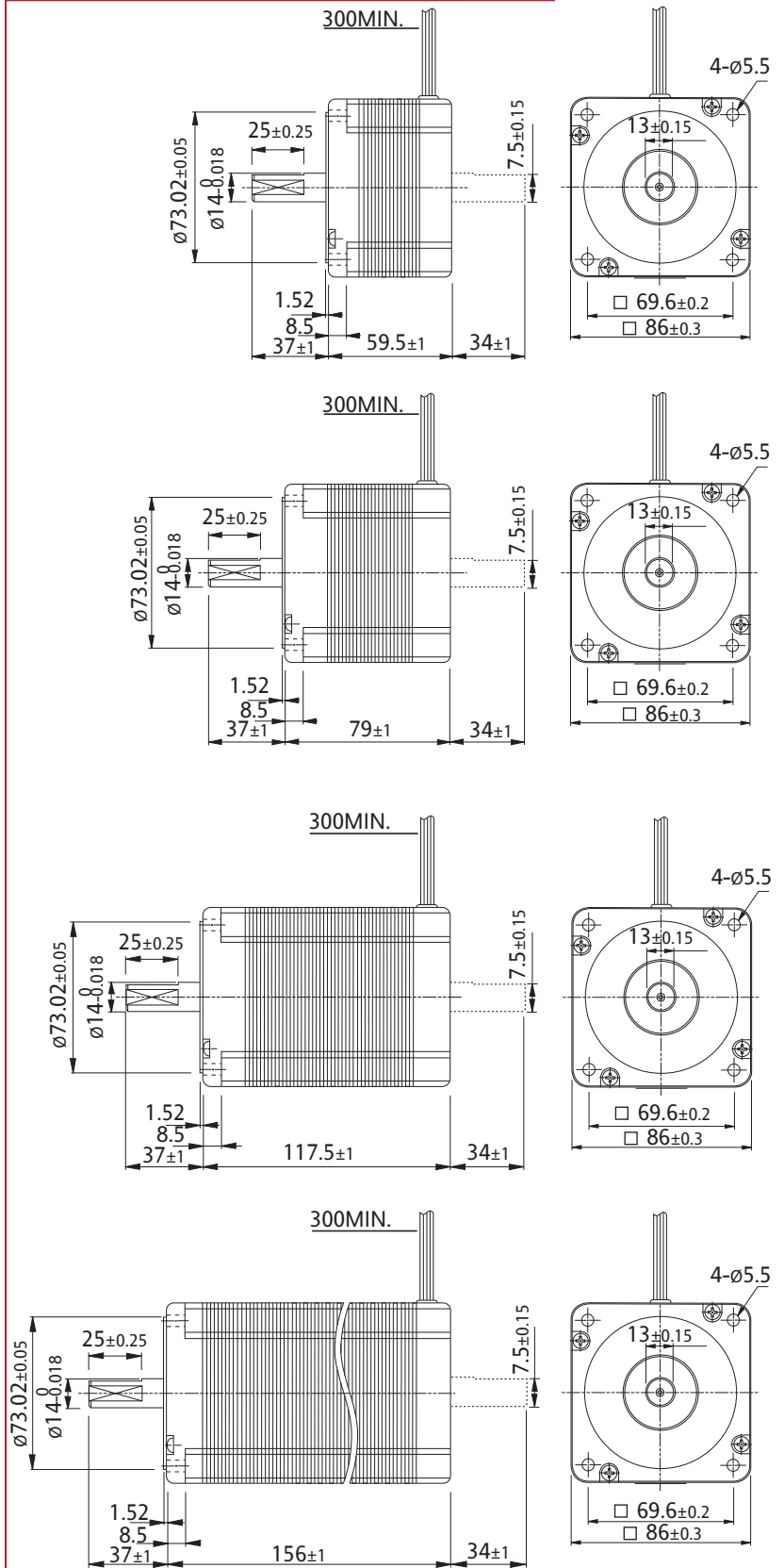


Azionamento bipolare passo intero e mezzo passo 60Vdc; 6A/Fase
Bipolar Constant Current Drive DC60V; 6A/Phase half and full step



Azionamento bipolare passo intero e mezzo passo 60Vdc; 6A/Fase
Bipolar Constant Current Drive DC60V; 6A/Phase half and full step

DIMENSIONI ● DIMENSIONS



COLORE DEI FILI ● COLOR OF LEAD WIRES

Vedi motori taglia 23 pag. 9 ● See size 23 motors page 9

MOTORI PASSO-PASSO • STEPPING MOTORS

Il motore passo-passo è un dispositivo usato per convertire impulsi elettrici in movimenti meccanici rotativi. I motori passo-passo presentati in questo catalogo sono motori ibridi a 2 fasi che si spostano di un movimento angolare pari a 1,8° ogni volta che cambia la polarità dell'avvolgimento.

I motori Tamagawa, distribuiti da Garnet, permettono un facile e accurato controllo della posizione, della velocità e pertanto sono adatti per impieghi in svariati ambiti, che comprendono l'automazione, la robotica, il settore automobilistico, medicale, tessile, oltre a quello delle macchine automatiche, del riscaldamento, della ventilazione e della climatizzazione. E' disponibile una vasta gamma di modelli di ottima qualità, con eccellenti caratteristiche di torque ed alta affidabilità, tali da incontrare le richieste di ogni specifica applicazione.

The step motor is a device used to convert electrical pulses into mechanical rotational movements. The step motors described in this catalogue are 2-phase hybrid type motors which provide an angular movement (pitch 1.8°) every time the polarity of a winding is changed. Tamagawa step motors, distributed by Garnet, allow an easy and accurate control of the position and speed of any mechanical movement; as a consequence, they can be suitable for use in various areas, such as factory automation, robotics, automotive, in the medical and textile field and also in the area of automatic machinery, of heating, ventilation and air conditioning. A full line of various models is available with superior features, excellent torque characteristics and high reliability in order to meet the requirements of any specific application.

CERTIFICAZIONE JMAQA-ISO 9001 • JMAQA-ISO 9001 CERTIFICATION

Certificate of Registration

TAMAGAWA SEIKI CO.,LTD.

This is to certify that the above Quality System is conformed to the below standard and registered by the JMAQA REGISTRATION CENTER as the result of assessment.

Applicable Standard : JISZ9901:1998/ISO 9001:1994
 Registration No. : JMAQA-020
 Registration Date : 21th October, 1996
 Registration Effective Date : 20th October, 2002
 Registration Revised Date : 27th September, 1999

JAPAN MANAGEMENT ASSOCIATION
 QA REGISTRATION CENTER
 Senior Executive Management

Chairman
 Akira Hattori
 Daisuke Sanjo

3-1-22 Shiba-Koen Minato-ku Tokyo 105-8522, Japan

Appendix to Certificate of Registration

Appendix No. : JMAQA-020-1 Registration No. : JMAQA-020

Address : TAMAGAWA SEIKI CO.,LTD.
 1879, Ohyasumi, Iida, Nagano, Japan

Registration Scope :
 Design/Development, Production & Sales of Instrument Motor, Instrument Unit & Automatic Control Unit.
 <The following sites are included.>
 HEAD OFFICE
 1879, Ohyasumi, Iida, Nagano, Japan
 TOKYO OFFICE
 3-19-9, Shinkamata, Ohta-ku, Tokyo, Japan
 <The following corporation is included.>
 TAMAGAWA TRADING CO.,LTD.
 1879, Ohyasumi, Iida, Nagano, Japan
 TAMAGAWA TRADING CO.,LTD. TOKYO OFFICE
 3-19-9, Shinkamata, Ohta-ku, Tokyo, Japan
 TAMAGAWA TRADING CO.,LTD. HIGASHI NIPPON SALES DEPT.
 KITAKANTO OFFICE
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TAMAGAWA TRADING CO.,LTD.
 A COMPANY OF TAMAGAWA SEIKI CO.,LTD.



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MOTORI CON TERMINAL BOX ● MOTORS WITH TERMINAL BOX



Versioni a terminal box disponibili
per i motori della taglia 34
*Versions with terminal box available
for size 34 motors*

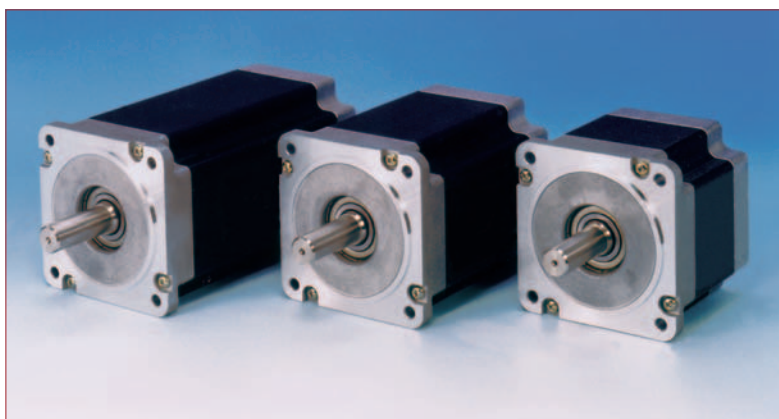
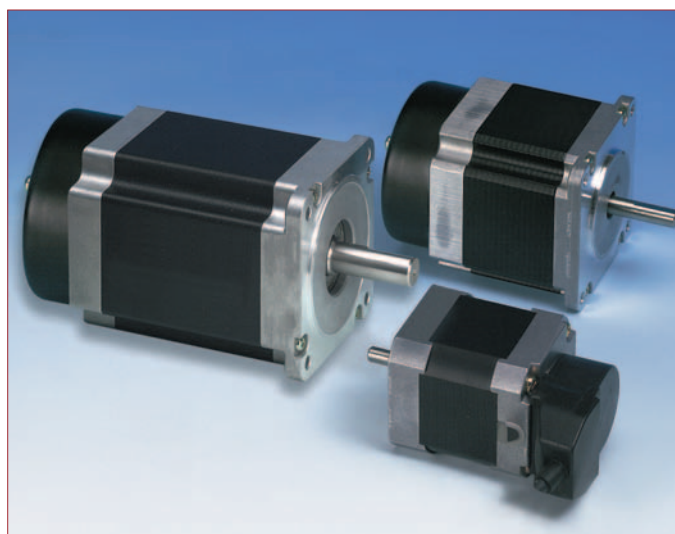
MOTORI CON ENCODER ● MOTORS WITH ENCODER

Risoluzioni disponibili:
versioni standard 100 imp/giro
e 200 imp/giro

*Available Resolutions:
standard versions 100 c/t and 200 c/t*

Segnali d'uscita: Line Driver, uscita TTL
(RS 422 compatibile)

*Output signals: Line Driver output,
(RS422 compatible) TTL output*



Versioni speciali disponibili su richiesta
Custom versions available on request



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