

HYOSEONG GEARED MOTOR



HYOSEONG GEARED MOTOR



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HSG
HSG CO., LTD.

USA
Voderady, HSSK / Factory



KOREA
HSG Co., Ltd / Bucheon Gyeonggi-do

CHINA
Shanghai, HSSH / Factory, R&D
Tianjin, HST / Factory
Wuhan, HMMS / Factory

INDIA
Chennai, HSI / Factory, R&D
Chennai, HSI / The 2nd Factory

SLOVAKIA
Voderady, HSSK / Factory

GERMANY
Bitterfeld, HKR / PCB Ass'y
HSE / W/H, R&D(future)

HSG Co., Ltd is an expert industrial geared -motor manufacturer, established in December 2002, and produces DC GEARED MOTORS, BLDC GEARED MOTORS, GEARHEAD(reducers), planetary reducers and worm reducers.

HSG'S experience in geared motors keeps us endeavoring for total customer satisfaction and the company goal of "social contribution with world best technology, quality and services" based on our fluent know-how in finding the quality customers need, maximizing effectiveness and efficiency and skilled technicians.

HSG promises continuous efforts to be a mutually developing company with employees and to satisfy our customers with the best products.



계열사



효성전기(주) (본사)/(부산 장안)
190, Jangansandan 9-ro, Jangan-eup, Gijang-gun, Busan, Republic of Korea



(주)HSG/(인천 서구)
76, Bukhang-ro 32beon-gil, Seo-gu, Incheon, Republic of Korea



효성정밀/(울산 연양)
208-15, Gacheongeumsa-gil, Samnam-eup, Ulju-gun, Ulsan, Republic of Korea

해외 계열사



Hyo Seong Europe GmbH
Hyo Seong Europe GmbH (Am Wasserturm 21, 74635 Kupferzell, Germany)



Hyoseong America Corporation
275 Northpointe Dr, Fairfield, OH 45014



Hyoseong Tianjin Electric Co., Ltd
No.99 Xisan Rd, Tianjin Airport Industrial Park Tianjin Port Free Trade Zone Tianjin, China

투자사



(주)V-CTECH/(경기 군포)
107, LS-ro 45beon-gil, Gunpo-si, Gyeonggi-do, Republic of Korea



(주)배터와이/(경북 칠곡)
24-13, 2saneopdanji 2-gil, Waegwan-eup, Chilgok-gun, Gyeongsangbuk-do, Republic of Korea

COMPANY HISTORY

'2024~

- 2022. 12 인천 항공 선도 기업 인증
- 2022. 06 500만불 수출의 탑 수상
- 2020. 07 ISO 14001 인증 획득

'2019~

- 2019. 07 (주)에이치에스지 공장 확장 이전 (부천시 ⇒ 인천 서구)
- 2014. 06 "INNO-BIZ" 인증
- 2013. 12 벤처 기업 인증[연구개발기업]
- 2013. 12 100만불 수출의 탑 수상
- 2013. 11 자동문용 BLDC GEARED MOTOR 생산
- 2013. 04 산업용 BLDC GEARED MOTOR 생산
- 2011. 10 DY AUTO GOLF CART용 MOTOR 생산
- 2011. 12 의료기용 BLDC GEARED MOTOR 생산

'2010~

- 2009. 07 IATF 16949 품질경영시스템 인증 획득(변경)
- 2007. 05 자동문용 DC GEARED MOTOR 개발 양산
- 2006. 02 (주) 에이치에스지 법인분리 독립
- 2003. 01 산업용 DC GEARED MOTOR 생산
- 2002. 12 효성정밀(주) 부천공장 설립

CONTENTS

PART. 1 DC MOTORS

□42	10W, 15W	00
□60	10W, 15W, 30W	00
□80	25W, 60W, 90W	00
□90	150W, 200W	00
□115	250W, 800W	00
	Worm type Geared Motor	00

PART. 2 BLDC MOTORS

□42	20W	00
□60	60W	00
□80	100W	00
□90	100W, 200W	00
	Outer Rotor ϕ 45 □60 60W	00
	Outer Rotor ϕ 75 □80 □90 100W	00

PART. 3 BLDC DRIVER

	HS-BLSD24 DC24V, 100W	00
	HS-BLSD24-CU30 DC12~24V	00
	HSG-ADC-200	00

PART. 4 SPECIAL GEARED MOTORS

	Standard Geared Motor for Automatic doors	00
	SUV Automatic side step Motor	00
	Steering Geared Motor for Golf Car	00
	Hollow Shaft(Flat type) Gear Head	00
	BLDC Worm Gear Motors	00

PART. 5 GEARHEADS

□60	Gearhead	00
□80	10W, 15W, 30W	00
□90	25W, 60W, 90W	00
□115	150W, 200W	00
□90	Hollow shaft(flat type) Gearhead	00

HSG PRODUCTS LIST

DC MOTORS



BLDC MOTORS



BLDC DRIVER



SPECIAL GEARED MOTORS



GEARHEADS



HSG DC GEARED MOTOR



HSG HSG CO., LTD.
HYOSEONG GEARED MOTOR



FEATURES

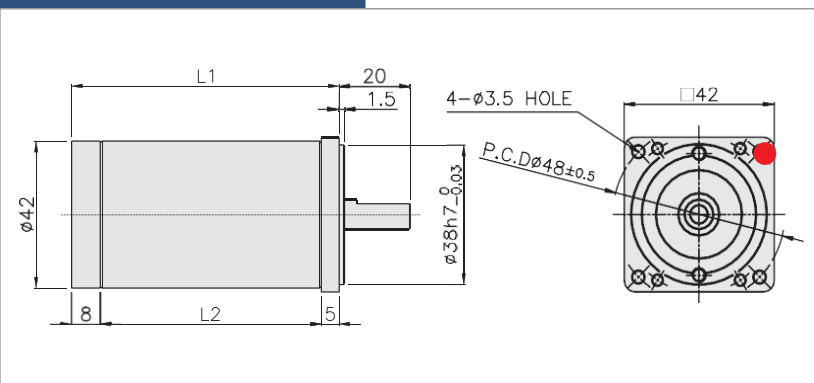
- Small size & Light Weight
- A wide range of application



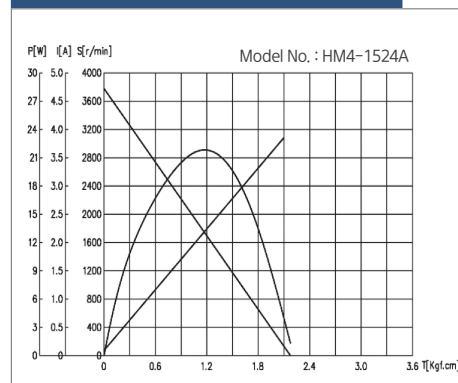
FEATURES

- Low Price & Slim Size Design
- High Efficiency
- Small size & Light Weight
- A wide range of application

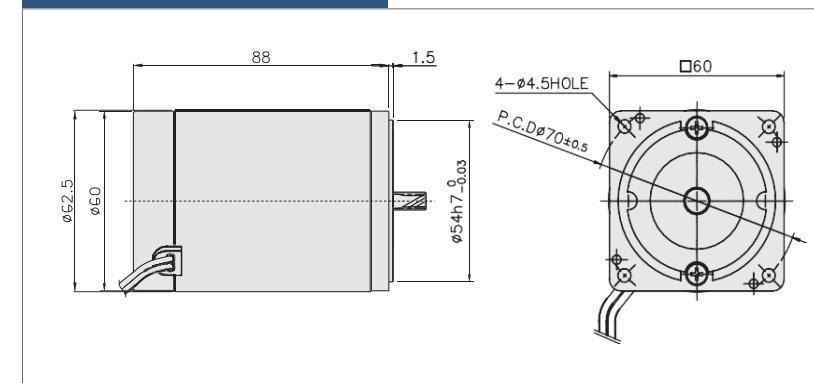
DIMENSIONS



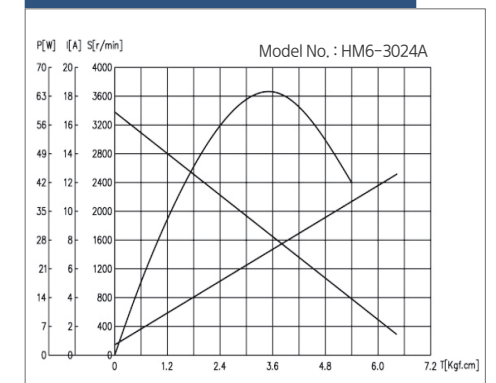
CHARACTERISTIC CURVE



DIMENSIONS

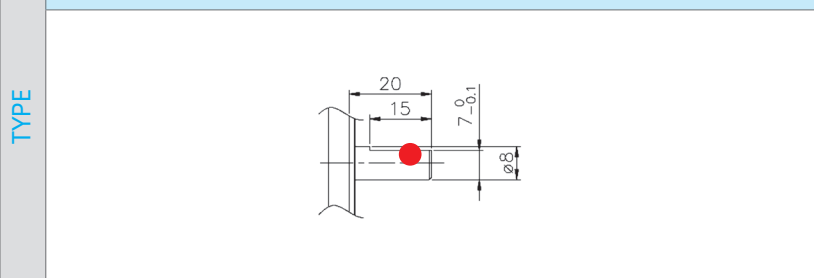


CHARACTERISTIC CURVE

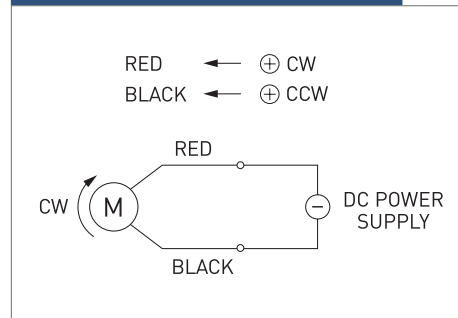


MOTOR OUTPUT SHAFT

D-CUT TYPE

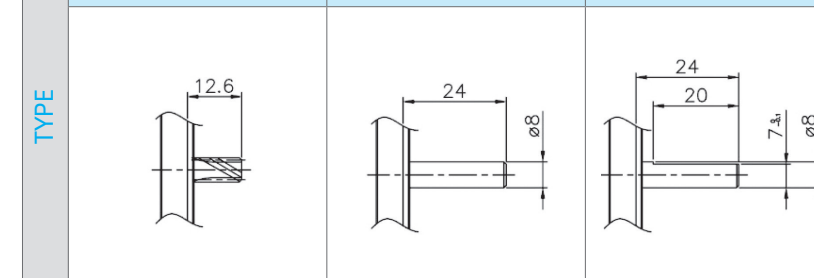


CIRCUIT DIAGRAM

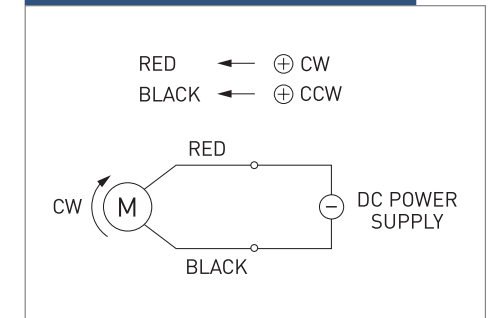


MOTOR OUTPUT SHAFT

GEARED TYPE STRAIGHT TYPE D-CUT TYPE



CIRCUIT DIAGRAM



SPECIFICATION

Model	Output (W)	Voltage (V)	No Load		At Rated Load			Weight (kg)	Motor Length (L1/L2)
			Speed (rpm)	Current (A)	Speed (rpm)	Torque (kgf.cm)	Current (A)		
HM4-1024A	10	24	4100	0.8	3000	0.4	1.0	0.48	75/62
HM4-1524A	15	24	3800	1.0	3000	0.5	1.7	0.50	88.5/75.5

SPECIFICATION

Model	Output (W)	Voltage (V)	No Load		At Rated Load			Weight (kg)
			Speed (rpm)	Current (A)	Speed (rpm)	Torque (kgf.cm)	Current (A)	
HM6-1012A	10	12	3300	0.8	2950	0.33	1.3	0.8
HM6-1024A		24	3300	0.6	3000	0.33	0.7	
HM6-1512A	15	12	3200	1.0	2900	0.50	2.4	0.8
HM6-1524A		24	3400	0.5	3100	0.50	1.2	
HM6-3024A	30	24	3400	0.7	2900	1	2.4	0.8

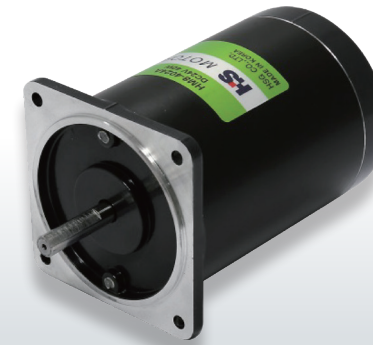
□ 60 Gear Ratio 1/3 ~ 1/250

□ 80 25W, 60W, 90W



FEATURES

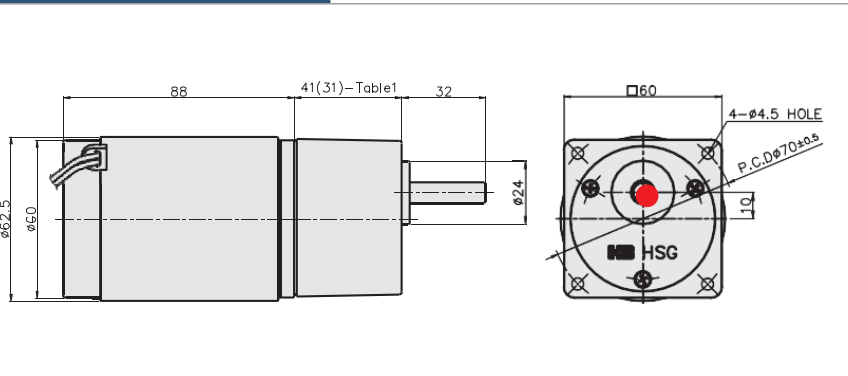
- Gear Ratios optimized for motor
- High Efficiency
- Low Noise & Low Vibration
- A wide range of applications



FEATURES

- High Efficiency
- Low noise & Low Vibration
- A wide range of applications

DIMENSIONS



GEAR HEAD OUTPUT SHAFT

※ TABLE 2

D-CUT TYPE HG6-()D	
KEY TYPE HG6-()K	
KEY SPEC	

※ TABLE 1

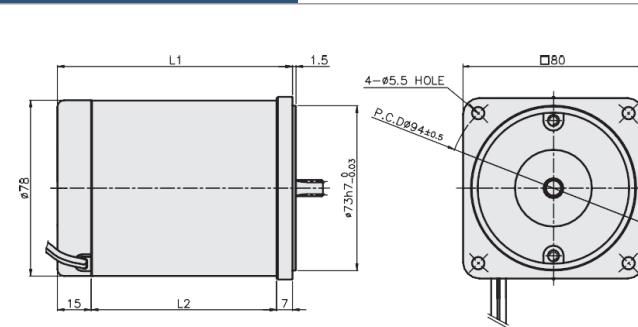
Gear Ratio	SIZE
1:03 ~ 1:18	31mm
1:20 ~ 1:250	41mm

Maximum permissible torque of Gear Head

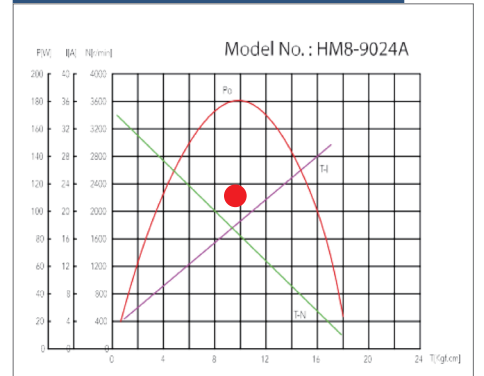
Model	Gear Ratio	Gear Ratio																									
		3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	250	
Geared Motor: HGM6-1024A	Speed (No Load)	rpm	1100	917	660	550	440	367	330	264	220	183	165	132	110	92	83	66	55	44	37	33	28	22	18	17	13
	Gear Head: HG6-()	Torque	N·m	0.08	0.10	0.13	0.16	0.20	0.24	0.27	0.33	0.40	0.48	0.48	0.60	0.72	0.87	0.95	1.08	1.30	1.62	1.95	2.17	2.60	3	3	3
		kgf·cm	0.8	1.0	1.3	1.6	2.0	2.4	2.7	3.3	4.0	4.8	4.8	6.0	7.2	8.7	9.6	10.8	13.0	16.2	19.5	21.7	26.0	30	30	30	30
Geared Motor: HGM6-1524A	Speed (No Load)	rpm	1133	944	680	567	453	378	340	272	227	189	170	136	113	94	85	68	57	45	38	34	28	23	19	17	14
	Gear Head: HG6-()	Torque	N·m	0.12	0.15	0.20	0.24	0.30	0.36	0.41	0.51	0.61	0.73	0.73	0.91	1.09	1.31	1.46	1.64	1.97	2.46	2.95	3	3	3	3	3
		kgf·cm	1.2	1.5	2.0	2.4	3.0	3.6	4.1	5.1	6.1	7.3	7.3	9.1	10.9	13.1	14.6	16.4	19.7	24.6	29.5	30	30	30	30	30	30
Geared Motor: HGM6-3024A	Speed (No Load)	rpm	1133	944	680	567	453	378	340	272	227	189	170	136	113	94	85	68	57	45	38	34	28	23	19	17	14
	Gear Head: HG6-()	Torque	N·m	0.24	0.29	0.41	0.49	0.61	0.73	0.81	1.01	1.22	1.46	1.46	1.82	2.19	2.62	2.62	3	3	3	3	3	3	3	3	3
		kgf·cm	2.4	2.9	4.1	4.9	6.1	7.3	8.1	10.1	12.2	14.6	14.6	18.2	21.9	26.2	29.2	30	30	30	30	30	30	30	30	30	30

■ Green color indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. Others indicate rotation in the opposite direction.

DIMENSIONS



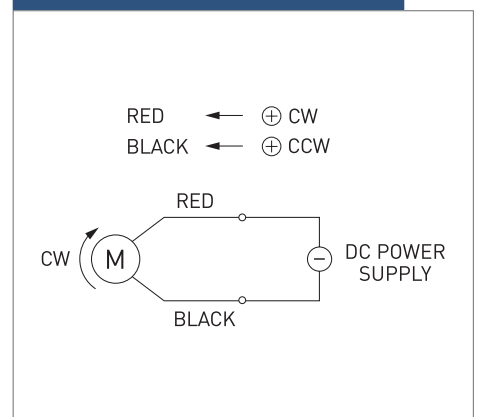
CHARACTERISTIC CURVE



MOTOR OUTPUT SHAFT

TYPE	GEARED TYPE	STRAIGHT TYPE	D-CUT TYPE

CIRCUIT DIAGRAM



SPECIFICATION

Model	Output (W)	Voltage (V)	No Load		At Rated Load			Weight (kg)	Motor Length (L1/L2)
			Speed (rpm)	Current (A)	Speed (rpm)	Torque (kgf·cm)	Current (A)		
HM8-2524A	25	24	3300	0.8	2900	0.8	2.0	1.6	104/82
HM8-6024A	60	24	3500	1.2	3100	2	3.3	1.6	114/92
HM8-9024A	90	24	3300	1.2	2900	3	5.0	1.7	

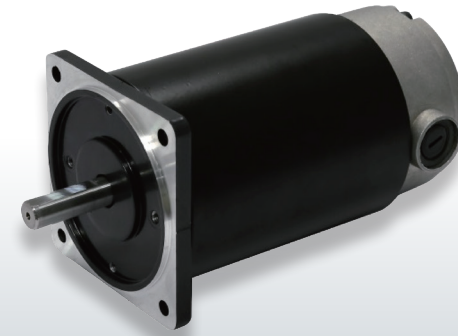
□ 80 Gear Ratio 1/3 ~ 1/200

□ 90 150W, 200W



FEATURES

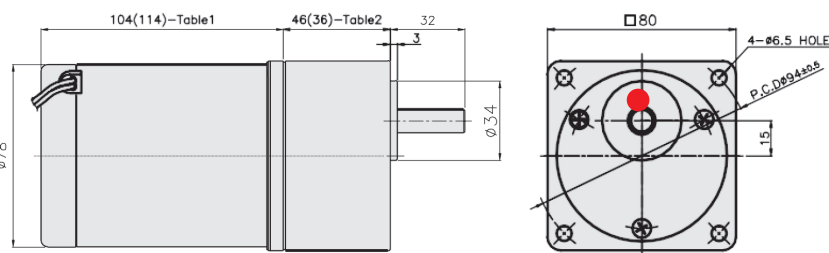
- Gear Ratios optimized for motor
- High Efficiency
- Low Noise & Low Vibration
- A wide range of applications



FEATURES

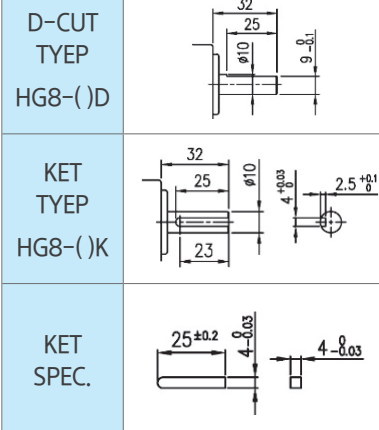
- High Efficiency
- Low noise & Low Vibration
- Replaceable brushes

DIMENSIONS



GEAR HEAD OUTPUT SHAFT

※ TABLE 3



※ TABLE 1

MOTOR Model	SIZE
25W	104mm
60W, 90W	114mm

※ TABLE 2

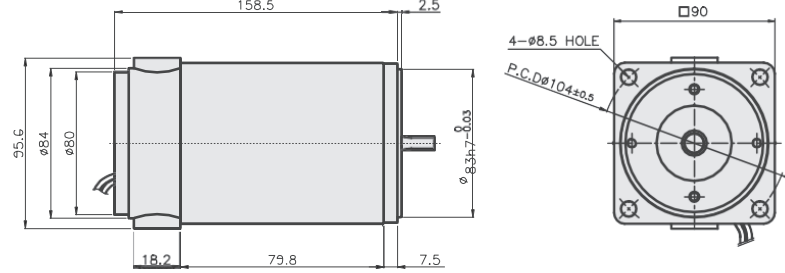
Gear Ratio	SIZE
1:03 ~ 1:18	36mm
1:20 ~ 1:200	46mm

Maximum permissible torque of Gear Head

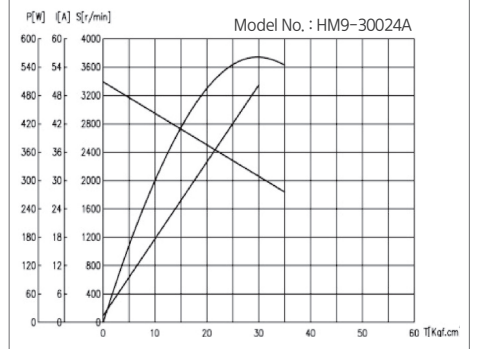
Model	Gear Ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	
Geared Motor: HGM8-2524A	Speed (No Load)	rpm	1100	917	660	550	440	367	330	264	220	183	165	132	110	92	83	66	55	44	37	33	28	22	18	17
	Torque	N·m	0.19	0.23	0.32	0.39	0.49	0.58	0.65	0.81	0.97	1.17	1.17	1.46	1.75	2.10	2.33	2.63	3.15	3.94	4.72	5.25	6.30	7.87	8	8
Gear Head: HG8-()	Torque	kgf·cm	1.9	2.3	3.2	3.9	4.9	5.8	6.5	8.1	9.7	11.7	11.7	14.6	17.5	21.0	23.3	26.2	31.5	39.4	47.2	52.5	63.0	78.7	80	80
	Torque	kgf·cm	4.9	5.8	8.1	9.7	12.2	14.6	16.2	20.3	24.3	29.2	29.2	36.5	43.7	52.5	58.3	65.6	78.7	80	80	80	80	80	80	80
Geared Motor: HGM6-6024A	Speed (No Load)	rpm	1167	972	700	583	467	389	350	280	233	194	175	140	117	97	88	70	58	47	39	35	29	23	19	18
	Torque	N·m	0.49	0.58	0.81	0.97	1.22	1.46	1.62	2.03	2.43	2.92	29.2	36.5	43.7	52.5	58.3	65.6	78.7	80	80	80	80	80	80	80
Gear Head: HG8-()	Torque	kgf·cm	4.9	5.8	8.1	9.7	12.2	14.6	16.2	20.3	24.3	29.2	29.2	36.5	43.7	52.5	58.3	65.6	78.7	80	80	80	80	80	80	80
	Torque	kgf·cm	7.3	8.7	12.2	14.6	18.2	21.9	24.3	30.4	36.5	43.7	43.7	54.7	65.6	78.7	80	80	80	80	80	80	80	80	80	80

■ Green color indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. Others indicate rotation in the opposite direction.

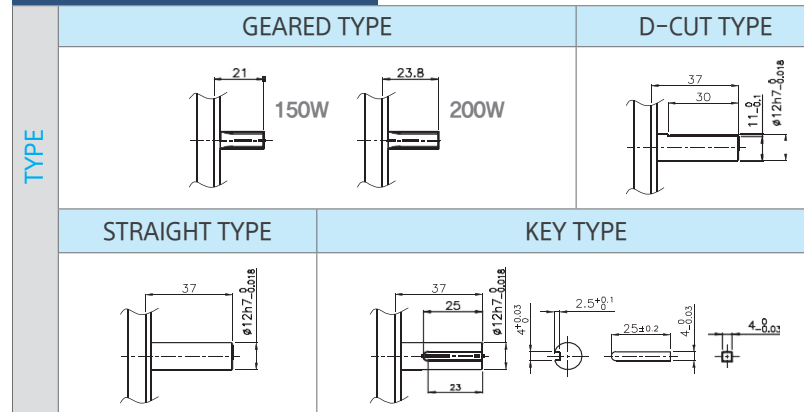
DIMENSIONS



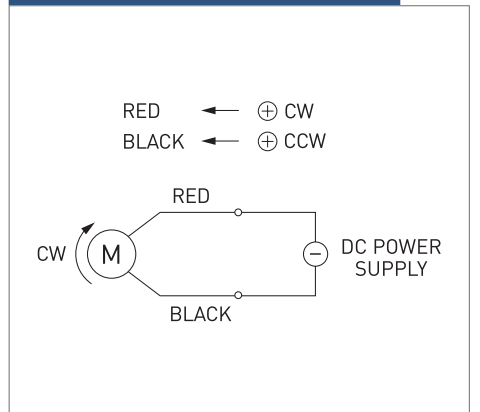
CHARACTERISTIC CURVE



MOTOR OUTPUT SHAFT



CIRCUIT DIAGRAM



SPECIFICATION

Model	Output (W)	Voltage (V)	No Load		At Rated Load		Weight (kg)	
			Speed (rpm)	Current (A)	Speed (rpm)	Torque (kgf·cm)		Current (A)
HM9-15024A	150	24	3200	1.5	2900	5	8.8	3.4
HM9-20024A	200	24	3400	1.5	3000	6.5	11.2	3.4



FEATURES

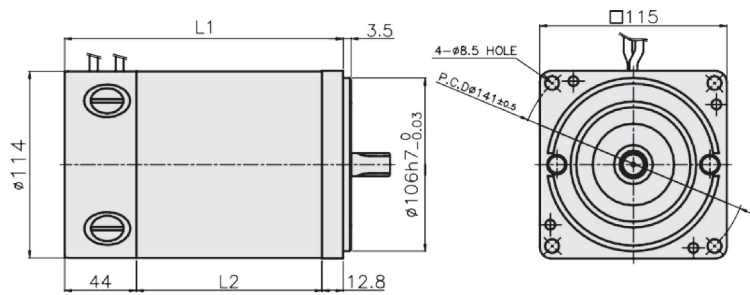
- High Efficiency
- A wide range of applications
- Replaceable brushes



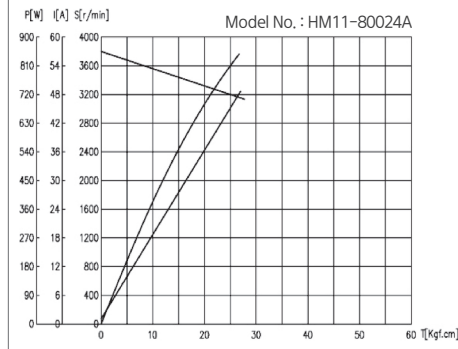
FEATURES

- Gear Ratios optimized for motor
- High Efficiency
- Low Noise & Low Vibration
- Replaceable brushes

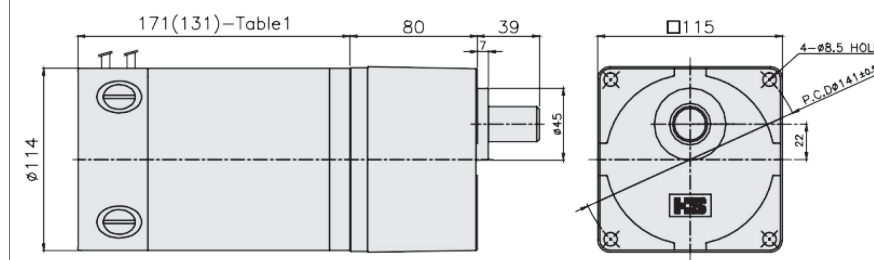
DIMENSIONS



CHARACTERISTIC CURVE

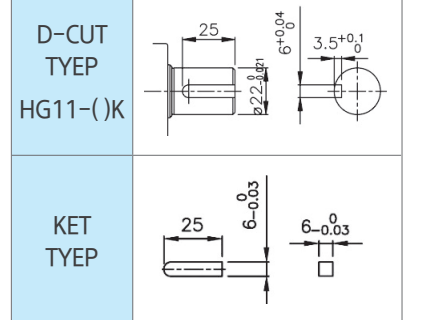


DIMENSIONS

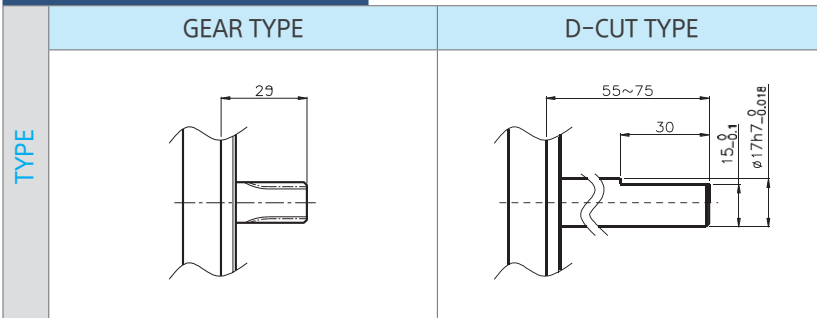


GEAR HEAD OUTPUT SHAFT

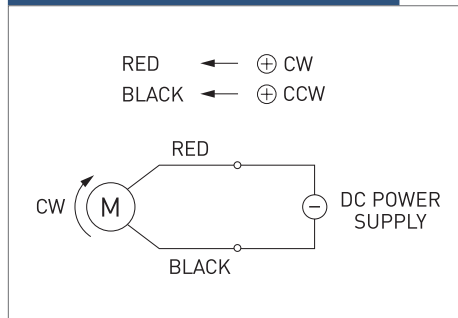
※ TABLE 2



MOTOR OUTPUT SHAFT



CIRCUIT DIAGRAM



※ TABLE 1

MOTOR Model	SIZE
250W	131mm
800W	171mm

Maximum permissible torque of Gear Head

Model	Gear Ratio		5	10	15	20	25	30	40
Geared Motor: HGM11-25024A	Speed (No Load)	rpm	760	380	253	190	152	127	95
		Torque	N·m	3.36	6.72	9.08	12.10	15.13	18.15
			kgf·cm	33.6	67.2	90.8	121.0	151.3	181.5
Geared Motor: HGM11-80024A	Speed (No Load)	rpm	760	380	253	190	152	127	95
		Torque	N·m	9.88	19.76	26.68	35.58	44.47	50.00
			kgf·cm	98.8	197.6	266.8	355.8	444.7	500.0

■ Green color indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. Others indicate rotation in the opposite direction.

SPECIFICATION

Model	Output (W)	Voltage (V)	No Load		At Rated Load			Weight (kg)	Motor Length (L1/L2)
			Speed (rpm)	Current (A)	Speed (rpm)	Torque (kgf.cm)	Current (A)		
HM11-25024A	250	24	3800	5.5	2930	8.3	17	4.3	131/74
HM11-80024A	800	24	3800	6.0	3200	24.4	46.7	6.3	171/114

□ HM37 Gear Ratio : 1/55, 1/77

□ HSW Gear Ratio : 1/50 ~ 1/110



FEATURES

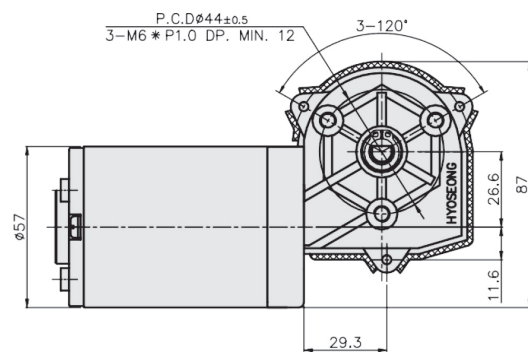
- Competitive price
- Small size & light weight
- Wide range of applications



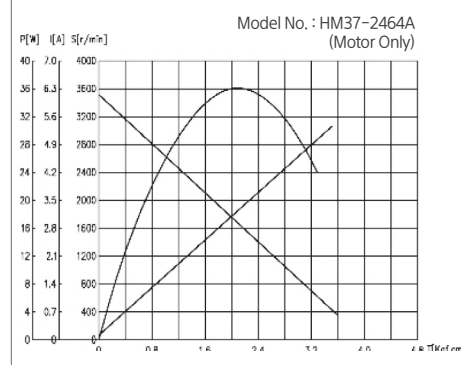
FEATURES

- Various Gear Ratio
- Prevent reverse force
- Small size & light weight
- Wide range of applications

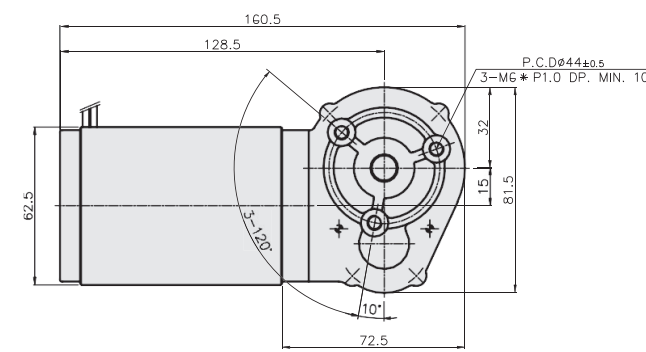
DIMENSIONS



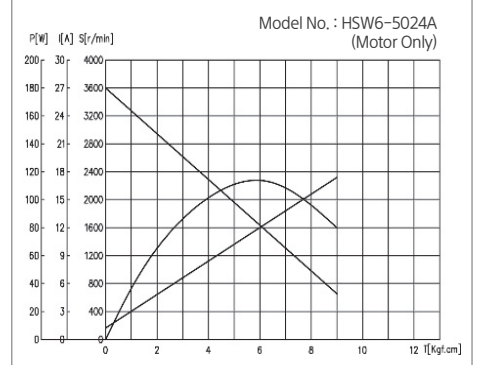
CHARACTERISTIC CURVE



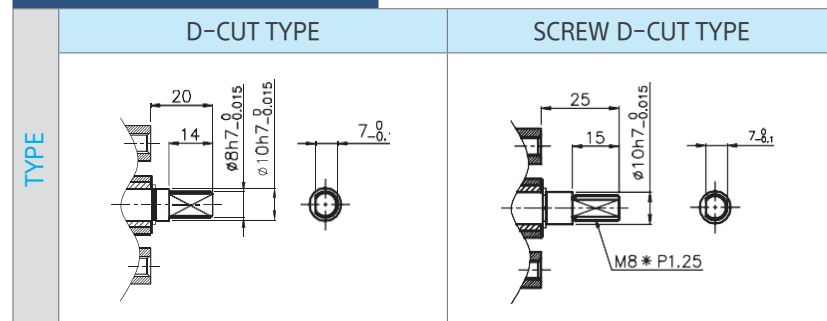
DIMENSIONS



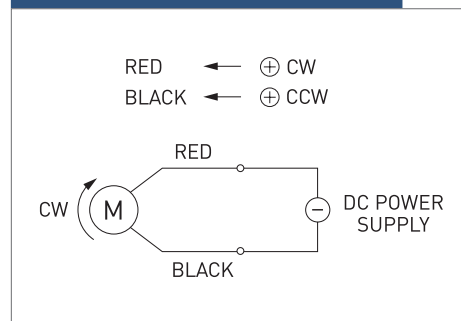
CHARACTERISTIC CURVE



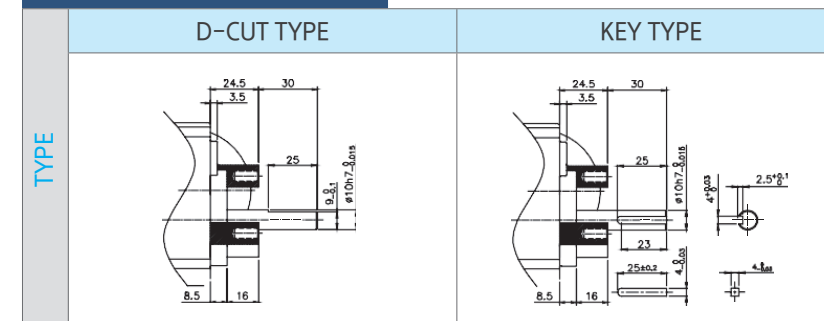
MOTOR OUTPUT SHAFT



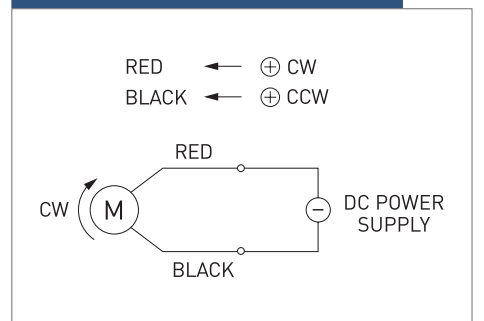
CIRCUIT DIAGRAM



MOTOR OUTPUT SHAFT



CIRCUIT DIAGRAM



SPECIFICATION

Model	Voltage (VDC)	Geared Motor				Motor Only					Weight (kg)
		Gear Ratio	No Load		At Rated Load		Output (W)				
			Speed (rpm)	Current (A)	Speed (rpm)	Current (A)		Speed (rpm)	Torque (kgf.cm)	Current (A)	
HM37-1264A	12	1:55	64	1.2	3520	1.2	3000	0.5	2.4	15	0.8
HM37-1232A	12	1:55	32	0.6	1760	0.6	1170	0.5	1.4	6	0.8
HM37-2464A	24	1:55	64	0.6	3520	0.6	3000	0.5	1.9	15	0.8
HM37-2423A	24	1:77	23	0.4	1800	0.4	1350	0.45	0.8	6	0.8

SPECIFICATION

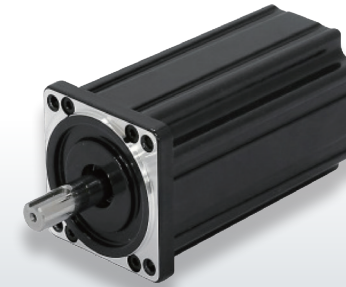
Model	Voltage (VDC)	Geared Motor				Motor Only					Weight (kg)
		Gear Ratio	No Load		At Rated Load		Output (W)				
			Speed (rpm)	Current (A)	Speed (rpm)	Current (A)		Speed (rpm)	Torque (kgf.cm)	Current (A)	
HSW6-2450A	24	1:50	72	0.8	3,600	0.8	3,150	1.54	3.3	50	1.5
HSW6-2450A	24	1:110	33	0.8	3,600	0.8	3,150	1.54	3.3	50	1.5

HSG BLDC GEARED MOTOR



STANDARD TYPE BLDC MOTOR

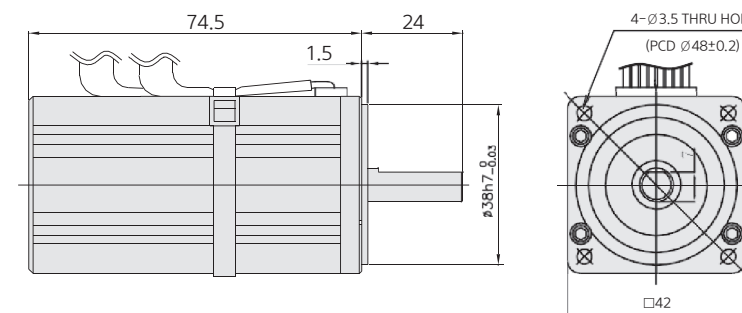
□42 20W



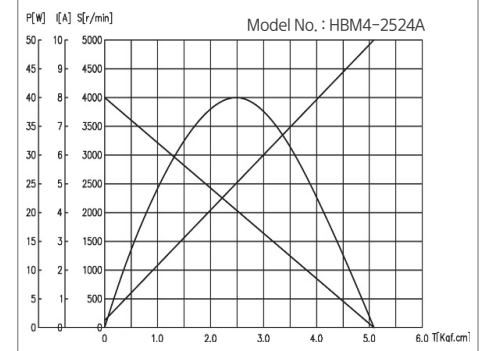
FEATURES

- Compact size design
- Minimize vibration and noise
- Fast & smooth motion
- Minimizing power consumption

DIMENSIONS



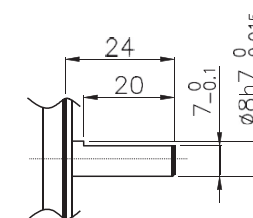
CHARACTERISTIC CURVE



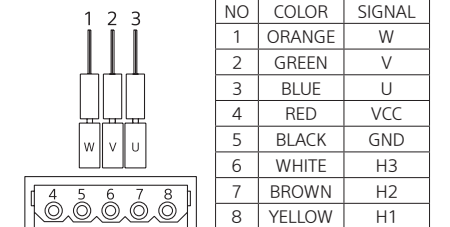
MOTOR OUTPUT SHAFT

D-CUT TYPE

TYPE



CIRCUIT DIAGRAM

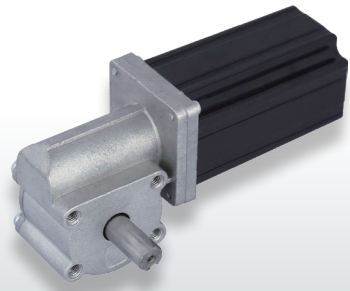


SPECIFICATION

Model	Output (W)	Voltage (V)	At Rated Load			Weight (kg)
			Speed (rpm)	Torque (kgf.cm)	Current (A)	
HBM4-2024A	25	24	3000	0.7	1.5	0.43

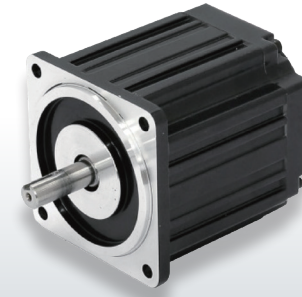
□ 42 Gear Ratio : 1/14.5

□ 60 60W



FEATURES

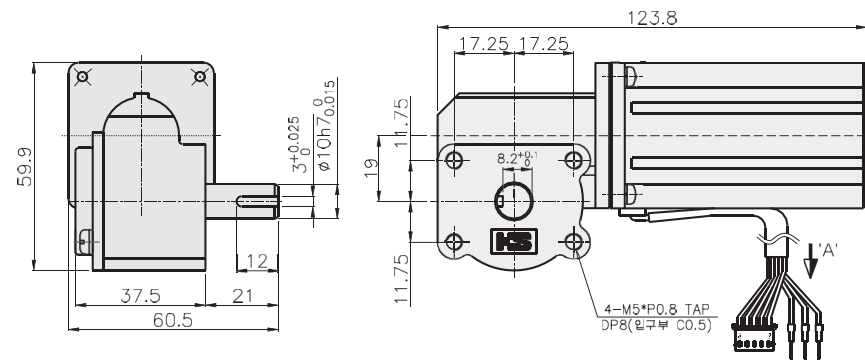
- Compact size design
- Minimize vibration and noise
- Minimizing power consumption



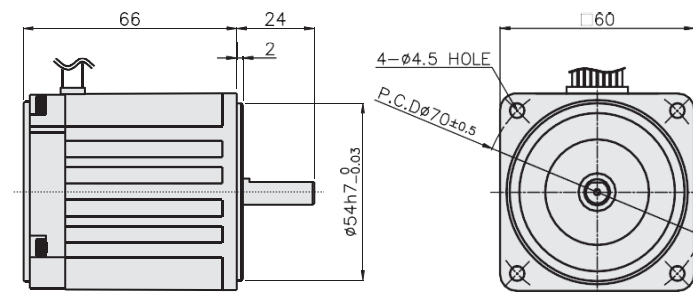
FEATURES

- Minimize vibration and noise
- Minimize cogging load
- Protection against heat
- A variety of drive controller option

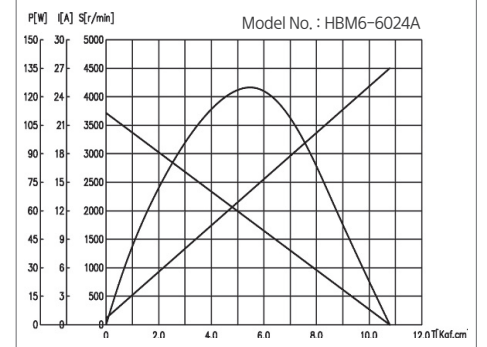
DIMENSIONS



DIMENSIONS



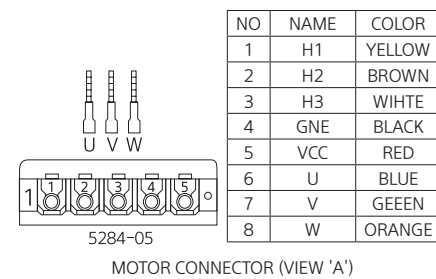
CHARACTERISTIC CURVE



MOTOR OUTPUT SHAFT

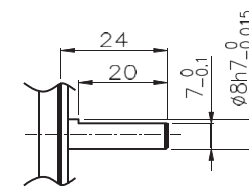
D-CUT TYPE

CIRCUIT DIAGRAM



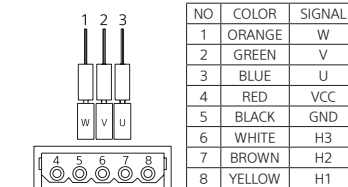
MOTOR OUTPUT SHAFT

D-CUT TYPE

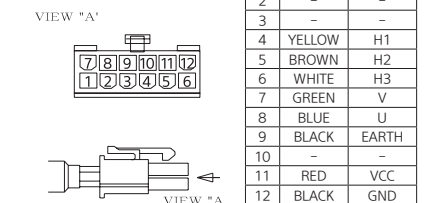


CIRCUIT DIAGRAM

LOW VOLTAGE



HIGH VOLTAGE



SPECIFICATION

Model	Voltage (VDC)	Geared Motor				Motor Only					Weight (kg)
		Gear Ratio	No Load		No Load		At Rated Load			Output (W)	
			Speed (rpm)	Current (A)	Speed (rpm)	Current (A)	Speed (rpm)	Torque (kgf.cm)	Current (A)		
HBM6-2024A	24	1:14.5	276	0.6	4000	0.5	3000	0.7	1.5	20	0.62

SPECIFICATION

Model	Output (W)	Voltage (V)	At Rated Load			Weight (kg)
			Speed (rpm)	Torque (kgf.cm)	Current (A)	
HBM6-6024A	60	24	3000	2.0	4.00	0.64
HBM6-31024A	60	310	3000	2.0	0.35	0.64

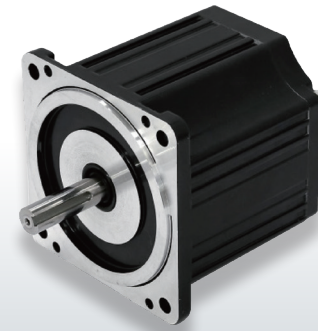
□ 60 Gear Ratio : 1/5 ~ 1/200

□ 80 100W



FEATURES

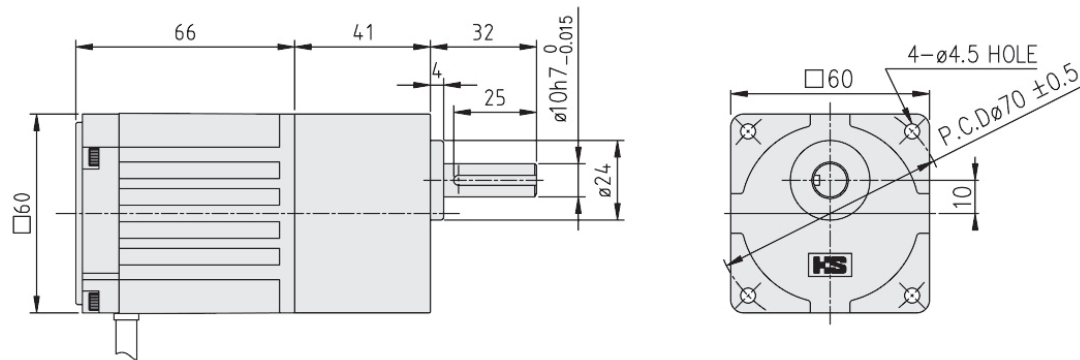
- Minimize vibration and noise
- Minimize cogging load
- Protection against heat
- A variety of drive controller option



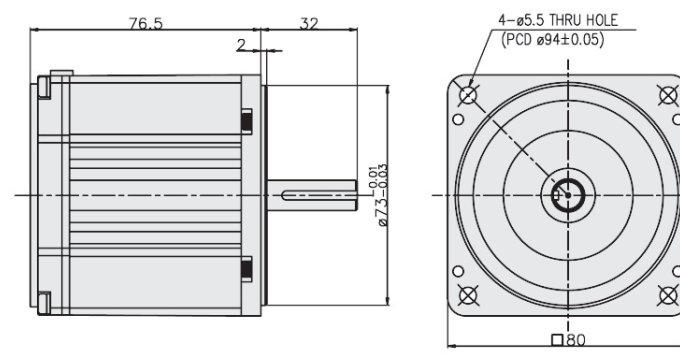
FEATURES

- Minimize vibration and noise
- Minimize cogging load
- Protection against heat
- A variety of drive controller option

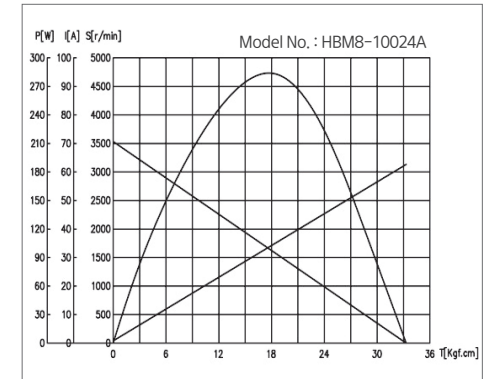
DIMENSIONS



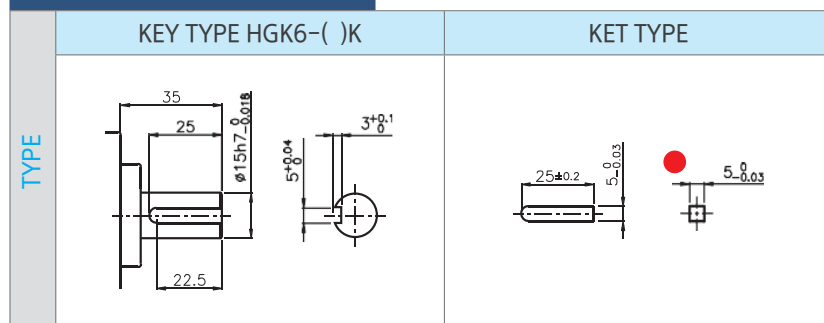
DIMENSIONS



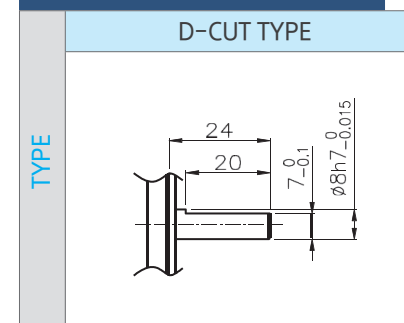
CHARACTERISTIC CURVE



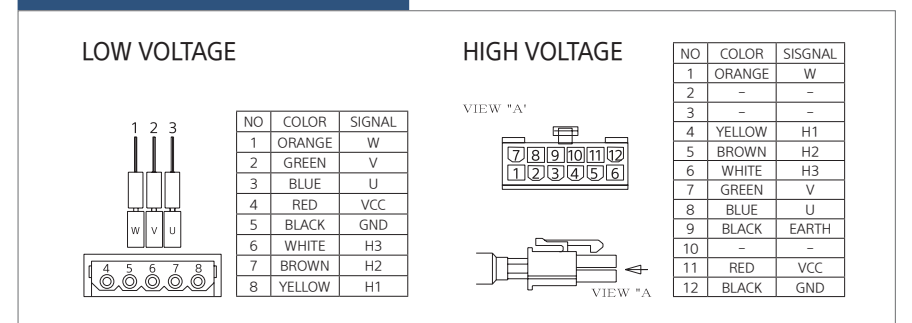
MOTOR OUTPUT SHAFT



MOTOR OUTPUT SHAFT



CIRCUIT DIAGRAM



Maximum permissible torque of Gear Head

Model	Gear Ratio		5	10	15	20	30	50	100	200
Geared Motor: HBGM6-6024A	Speed (No Load)	rpm	600	300	200	150	100	60	30	15
	Gear Head: HGK6-()	Torque	N·m	0.90	1.81	2.71	3.61	5.14	6	6
		kgf·cm	9.0	18.1	27.1	36.1	51.4	60	60	60

■ Green color indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. Others indicate rotation in the opposite direction.

SPECIFICATION

Model	Output (W)	Voltage (V)	At Rated Load			Weight (kg)
			Speed (rpm)	Torque (kgf·cm)	Current (A)	
HBM8-10024A	100	24	3000	3.2	6.0	1.6
HBM8-150310A	150	310	3000	3.2	0.6	1.6

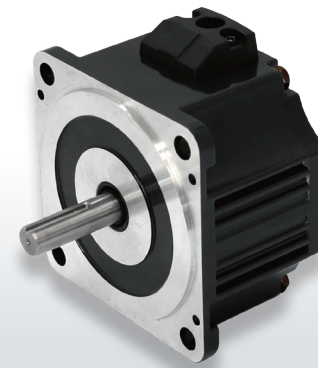
□ 80 Gear Ratio : 1/5 ~ 1/200

□ 90 100W, 200W



FEATURES

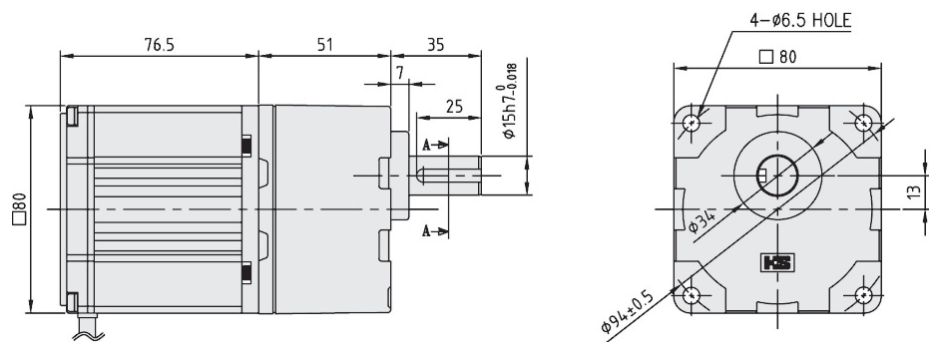
- Minimize vibration and noise
- Minimize cogging load
- Protection against heat
- A variety of drive controller option



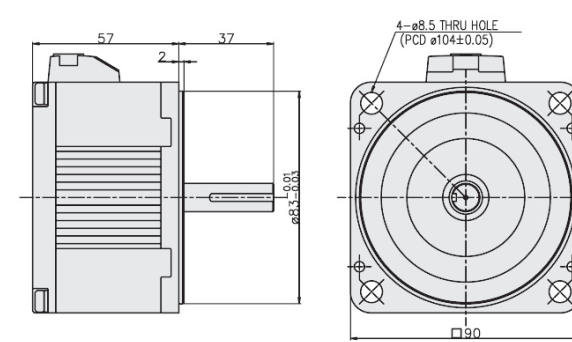
FEATURES

- Minimize vibration and noise
- Minimize cogging load
- Protection against heat
- A variety of drive controller option

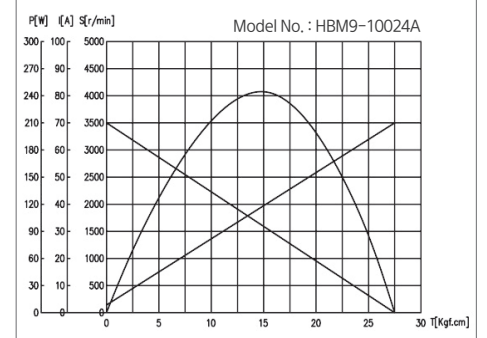
DIMENSIONS



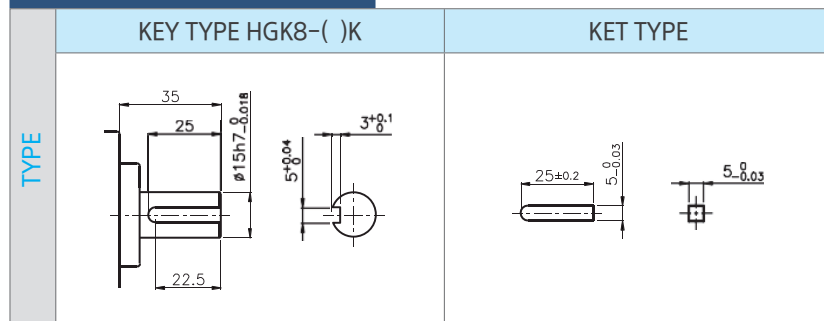
DIMENSIONS



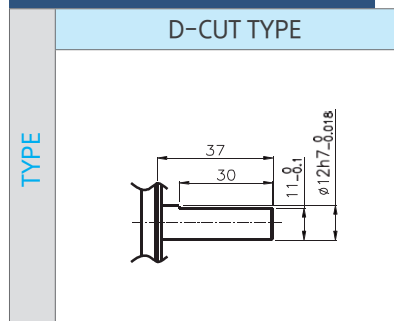
CHARACTERISTIC CURVE



MOTOR OUTPUT SHAFT

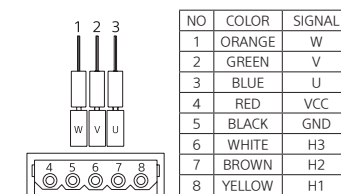


MOTOR OUTPUT SHAFT

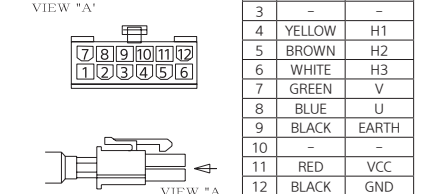


CIRCUIT DIAGRAM

LOW VOLTAGE



HIGH VOLTAGE



Maximum permissible torque of Gear Head

Model	Gear Ratio		5	10	15	20	30	50	100	200
Geared Motor : HBGM8-10024A HBGM8-100310A	Speed (No Load)	rpm	600	300	200	150	100	60	30	15
	Torque	N·m	1.53	3.07	4.60	6.14	8.75	14.58	16	16
		kgf·cm	15.3	30.7	46.0	61.4	87.5	145.8	160	160

■ Green color indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. Others indicate rotation in the opposite direction.

SPECIFICATION

Model	Output (W)	Voltage (V)	At Rated Load			Weight (kg)
			Speed (rpm)	Torque (kgf.cm)	Current (A)	
HBM9-10024A	100	24	3000	3.2	6.0	1.3
HBM9-100310A	100	310	3000	3.2	0.6	1.3
HBM9-20024A	200	24	3000	6.4	12.0	1.3
HBM9-200310A	200	310	3000	6.4	1.20	1.3

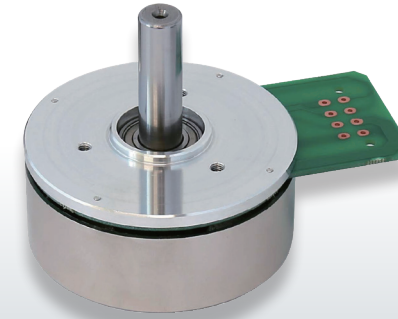
□ 90 Gear Ratio : 1/5 ~ 1/200

□ ROUND TYPE $\Phi 45.5$ 60W



FEATURES

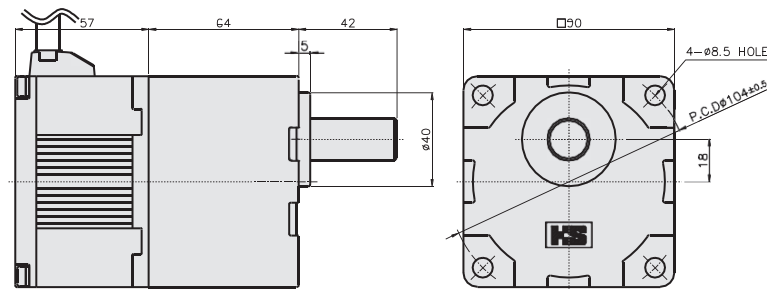
- Minimize vibration and noise
- Minimize cogging load
- Protection against heat
- A variety of drive controller option



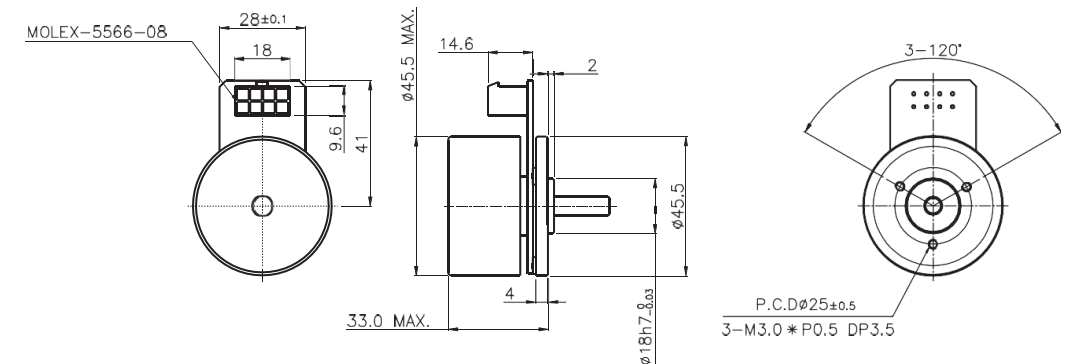
FEATURES

- Small size Flat design
- Low noise & High torque
- Fast response

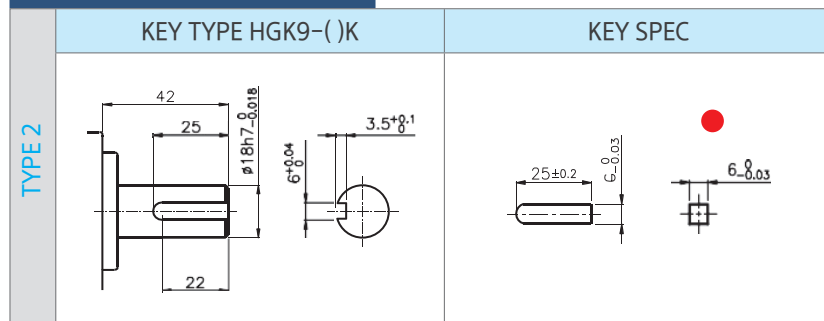
DIMENSIONS



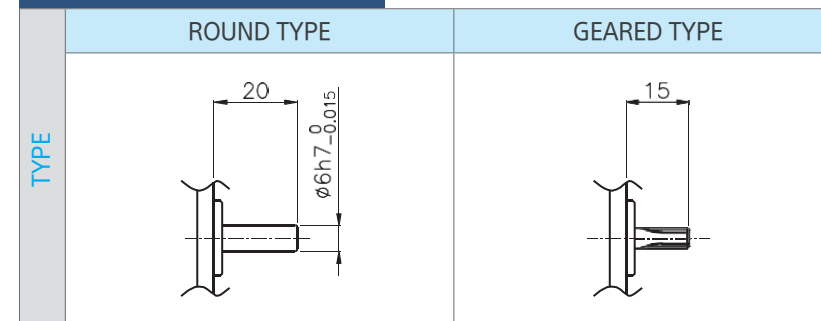
DIMENSIONS



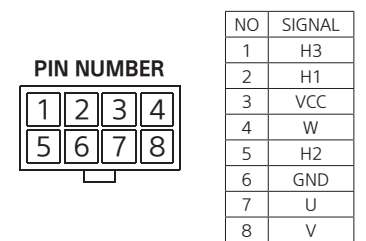
MOTOR OUTPUT SHAFT



MOTOR OUTPUT SHAFT



CIRCUIT DIAGRAM



Maximum permissible torque of Gear Head

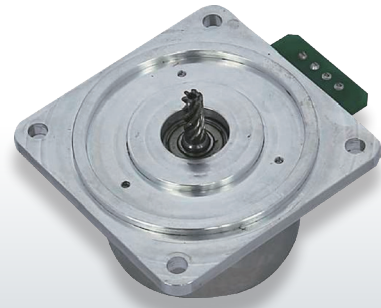
Model	Gear Ratio		5	10	15	20	30	50	100	200
Geared Motor : HBGM9-10024A HBGM9-100310A	Speed (No Load)	rpm	600	300	200	150	100	60	30	15
	Torque	N·m	1.53	3.07	4.60	6.14	8.75	14.58	29.15	30
		kgf·cm	15.3	30.7	46.0	61.4	87.5	145.8	291.5	300

■ Green color indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. Others indicate rotation in the opposite direction.

SPECIFICATION

Model	Output (W)	Voltage (V)	At Rated Load			Weight (kg)
			Speed (rpm)	Torque (kgf·cm)	Current (A)	
HBOM45-6024A	60	24	3000	2.0	4.00	0.30
HBOM45-60310A	60	310	3000	2.0	0.40	0.30

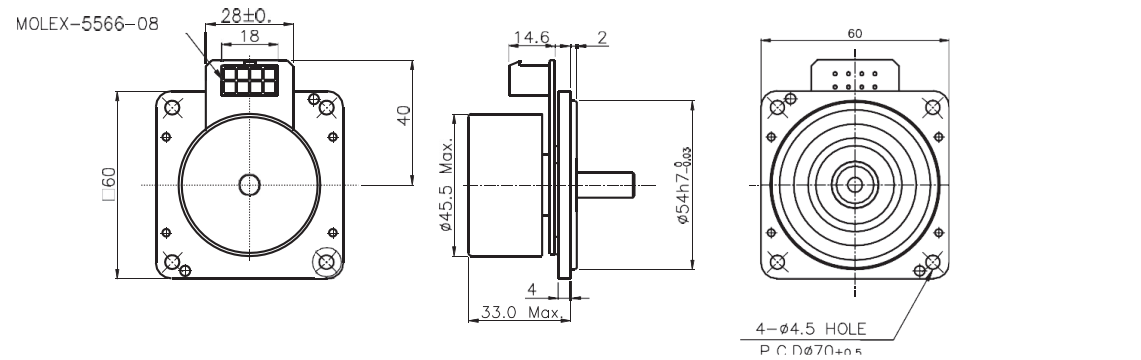
□ SQUARE TYPE □60 60W



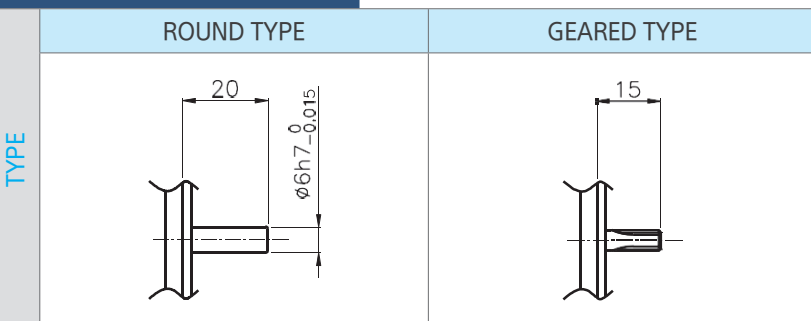
FEATURES

- Small size Flat design
- Low noise & High torque
- Fast response

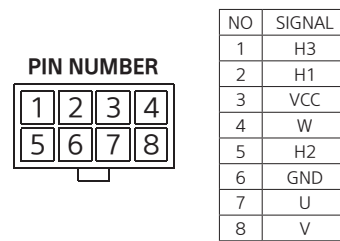
DIMENSIONS



MOTOR OUTPUT SHAFT



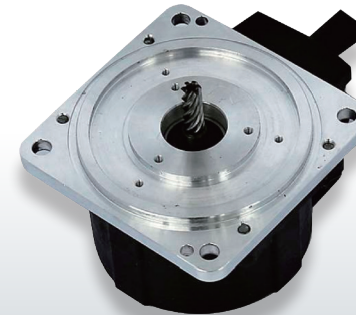
CIRCUIT DIAGRAM



SPECIFICATION

Model	Output (W)	Voltage (V)	At Rated Load			Weight (kg)
			Speed (rpm)	Torque (kgf.cm)	Current (A)	
HBOM6-6024A	60	24	3000	2.0	4.00	0.30
HBOM6-60310A	60	310	3000	2.0	0.40	0.30

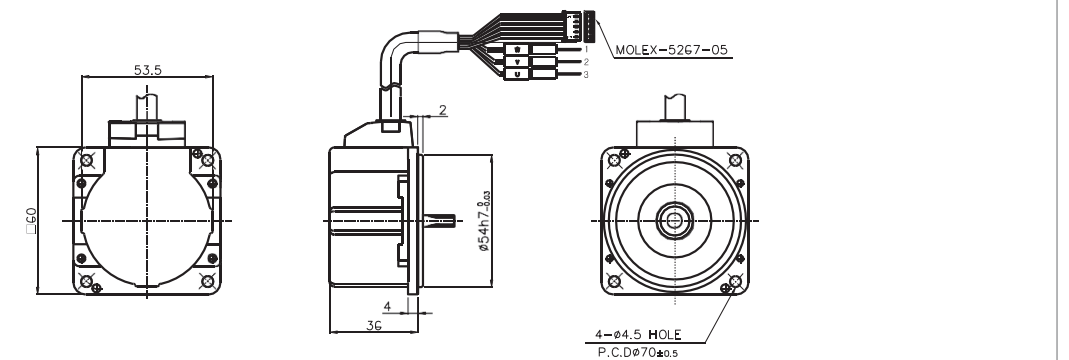
□ SQUARE TYPE □60 60W (Rotor Case cover & shield cable)



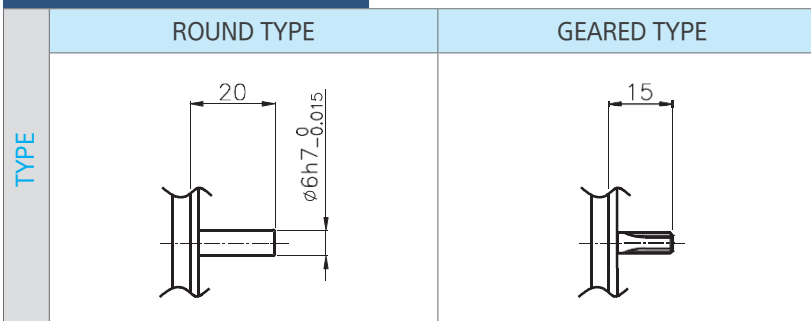
FEATURES

- Small size Flat design
- Low noise & High torque
- Fast response

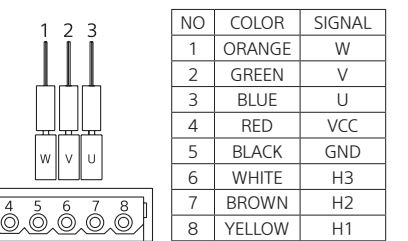
DIMENSIONS



MOTOR OUTPUT SHAFT



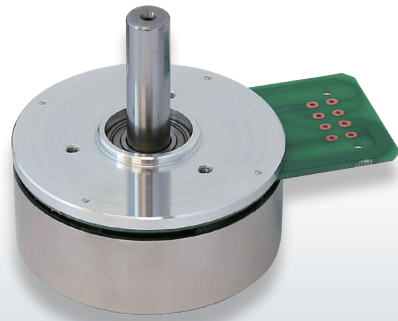
CIRCUIT DIAGRAM



SPECIFICATION

Model	Output (W)	Voltage (V)	At Rated Load			Weight (kg)
			Speed (rpm)	Torque (kgf.cm)	Current (A)	
HBOM6-6024A	60	24	3000	2.0	4.00	0.30
HBOM6-60310A	60	310	3000	2.0	0.40	0.30

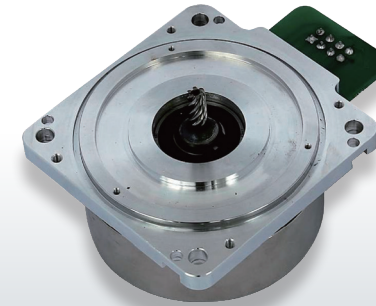
□ ROUND TYPE Ø75 100W



FEATURES

- Small size Flat design
- Low noise & High torque
- Fast response

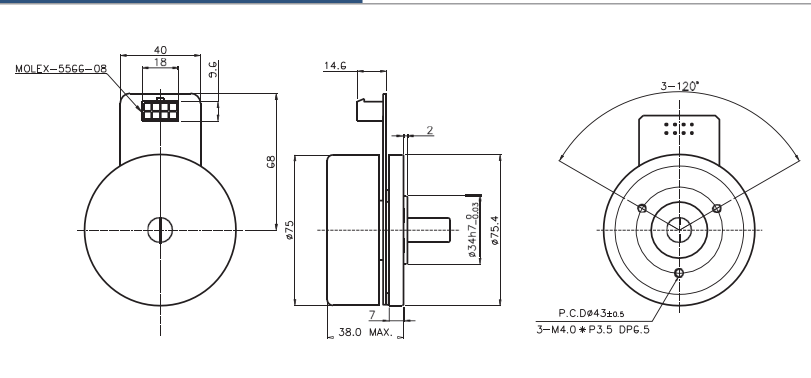
□ SQUARE TYPE □80 100W



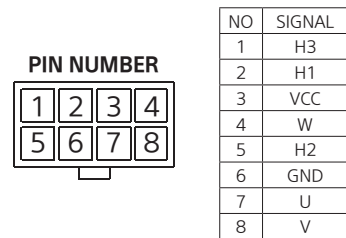
FEATURES

- Small size Flat design
- Low noise & High torque
- Fast response

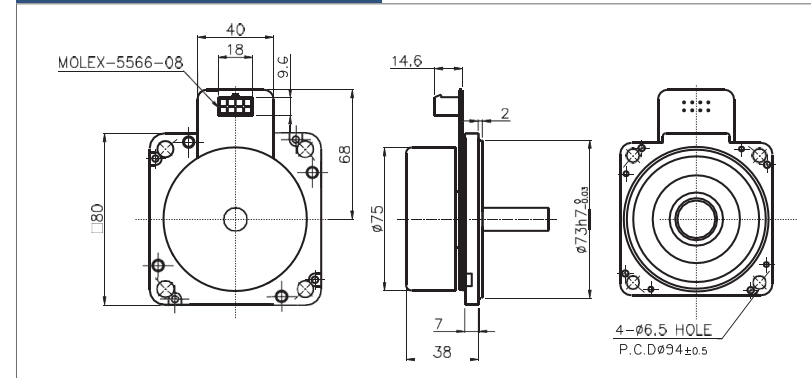
DIMENSIONS



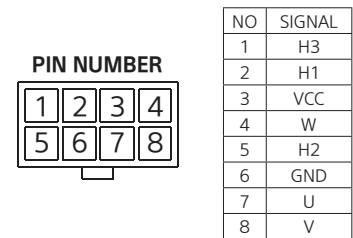
CIRCUIT DIAGRAM



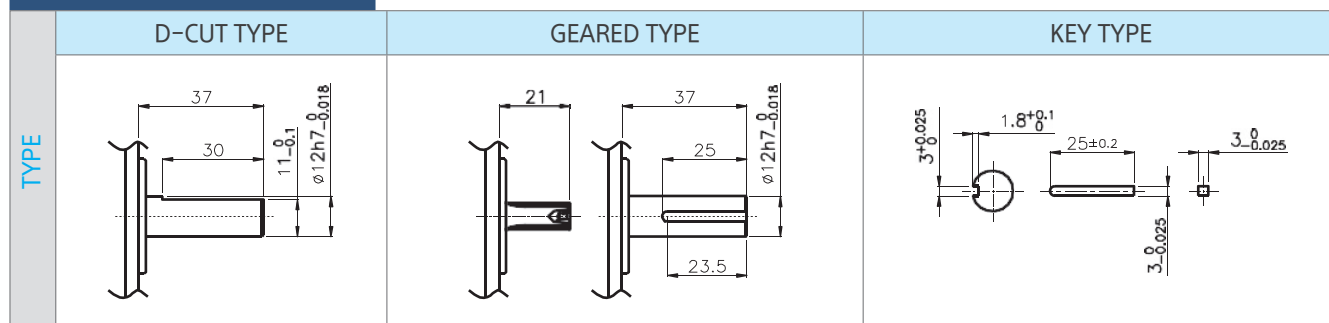
DIMENSIONS



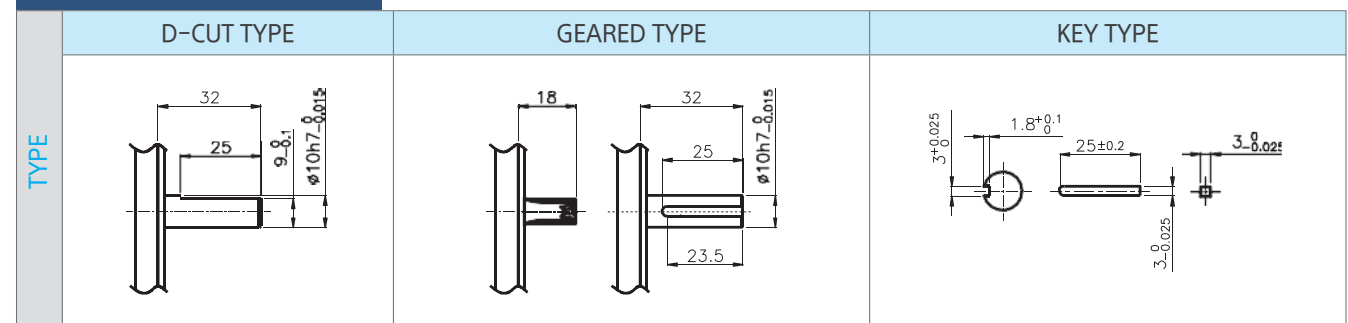
CIRCUIT DIAGRAM



MOTOR OUTPUT SHAFT



MOTOR OUTPUT SHAFT

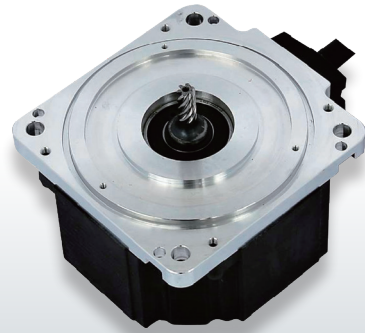


SPECIFICATION

Model	Output (W)	Voltage (V)	At Rated Load			Weight (kg)
			Speed (rpm)	Torque (kgf.cm)	Current (A)	
HBOM75-10024A	100	24	3000	3.2	6.00	0.70
HBOM75-100310A	100	310	3000	3.2	0.60	0.70

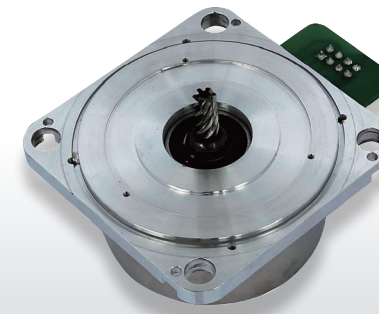
SPECIFICATION

Model	Output (W)	Voltage (V)	At Rated Load			Weight (kg)
			Speed (rpm)	Torque (kgf.cm)	Current (A)	
HBOMB-10024A	100	24	3000	3.2	6.00	0.70
HBOMB-100310A	100	310	3000	3.2	0.60	0.70



FEATURES

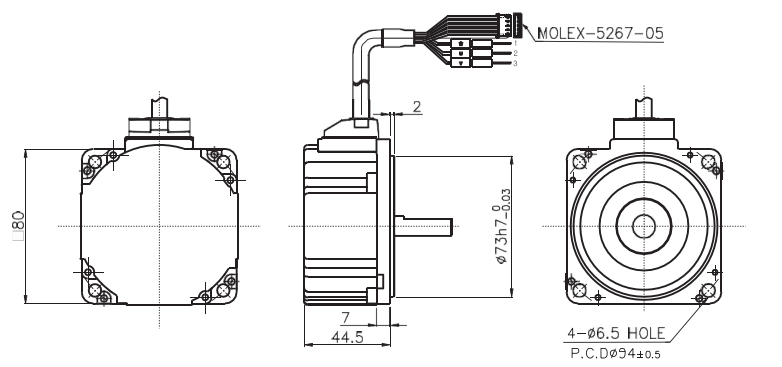
- Small size Flat design
- Low noise & High torque
- Fast response



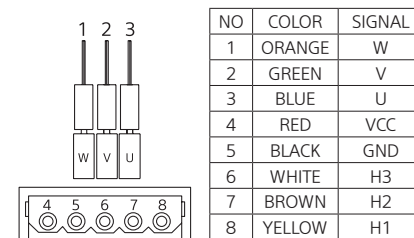
FEATURES

- Small size Flat design
- Low noise & High torque
- Fast response

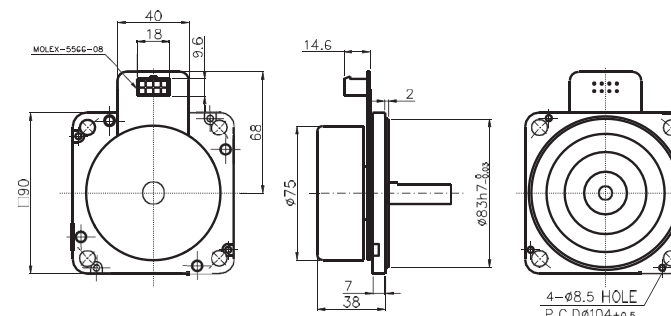
DIMENSIONS



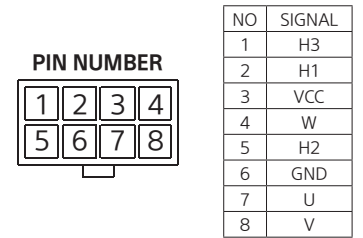
CIRCUIT DIAGRAM



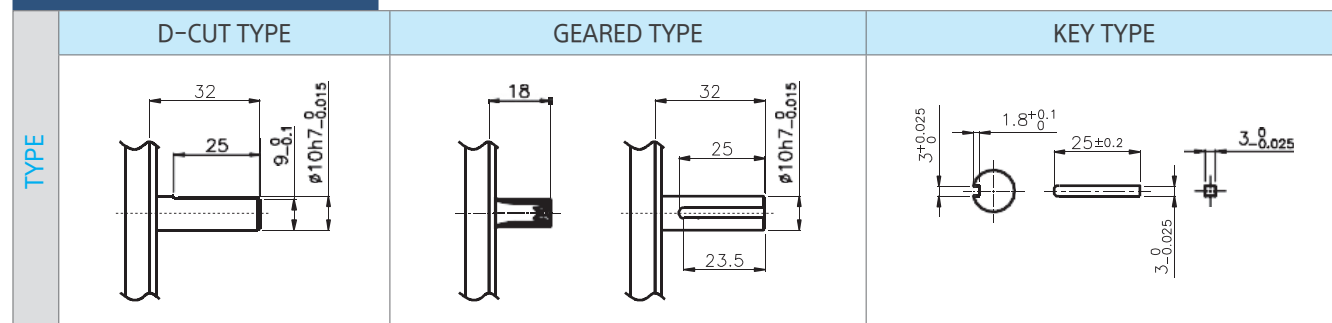
DIMENSIONS



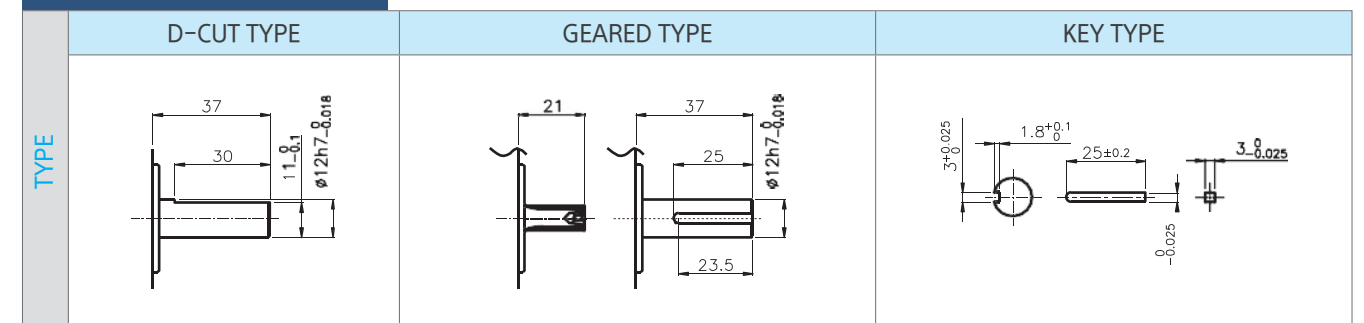
CIRCUIT DIAGRAM



MOTOR OUTPUT SHAFT



MOTOR OUTPUT SHAFT



SPECIFICATION

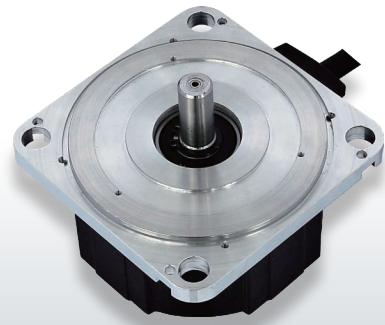
Model	Output (W)	Voltage (V)	At Rated Load			Weight (kg)
			Speed (rpm)	Torque (kgf.cm)	Current (A)	
HBOM8-10024B	100	24	3000	3.2	6.00	0.70
HBOM8-100310B	100	310	3000	3.2	0.60	0.70

SPECIFICATION

Model	Output (W)	Voltage (V)	At Rated Load			Weight (kg)
			Speed (rpm)	Torque (kgf.cm)	Current (A)	
HBOMB-10024A	100	24	3000	3.2	6.00	0.70
HBOMB-100310A	100	310	3000	3.2	0.60	0.70

OUTER ROTOR TYPE BLDC MOTORS

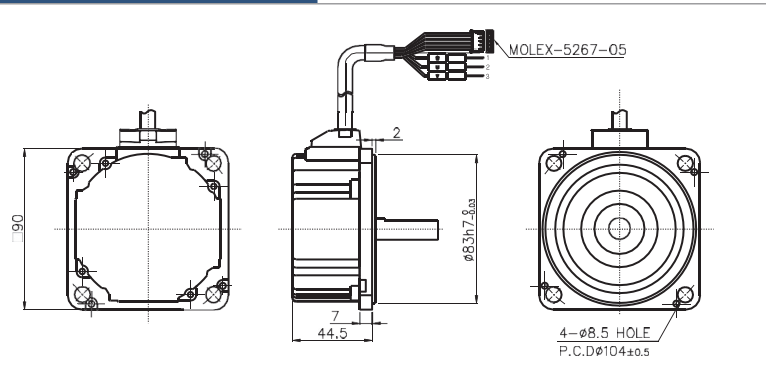
SQUARE TYPE □90 100W (Rotor Case cover & shield cable)



FEATURES

- Small size Flat design
- Low noise & High torque
- Fast response

DIMENSIONS



CIRCUIT DIAGRAM

NO	COLOR	SIGNAL
1	ORANGE	W
2	GREEN	V
3	BLUE	U
4	RED	VCC
5	BLACK	GND
6	WHITE	H3
7	BROWN	H2
8	YELLOW	H1

MOTOR OUTPUT SHAFT

TYPE	D-CUT TYPE	GEARED TYPE	KEY TYPE

SPECIFICATION

Model	Output (W)	Voltage (V)	At Rated Load			Weight (kg)
			Speed (rpm)	Torque (kgf.cm)	Current (A)	
HBOM9-10024B	100	24	3000	3.4	6.00	0.70
HBOM9-100310B	100	310	3000	3.4	0.60	0.70

HSG MOTOR DRIVER



HSG

HSG HSG CO., LTD.
HYOSEONG GEARED MOTOR

□ HS-BLSD24 | HS-BLSD-CU30 DC24V / 6A | DC12,24 / 30A

□ HSG-ADC-200 DC28V, 0.5A



FEATURES

- Sine wave BLDC driver
- Hall Sensor Interface
- A wide range of applications
- 6/8/10/12 Pole Selection
- Acceleration/Deceleration (User Selection)

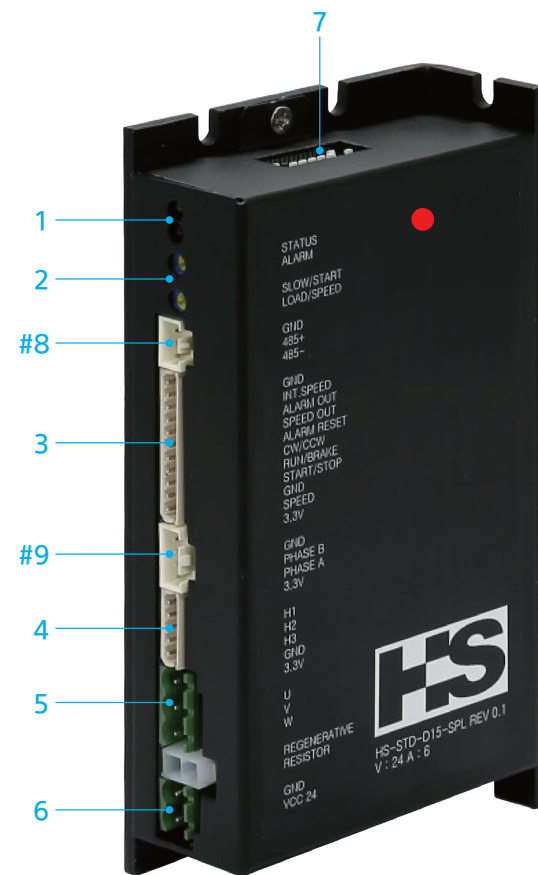


FEATURES

-

CONNECTION TABLE

No.	Function	Pin	Label	Description
1	LED	1	Red	Alarm status
		2	Green	Motion status
2	Speed Potentiometer	1	SLOW/START	SLOW/START (Max. 7sec)
		2	LOAD/SPEED	LOAD/SPEED
3	I/O Connect-ors	1	3.3V	3.3V output for hall sensor supply
		2	Ext Speed	Ext potentiometer Input signal
		3	GND	Input signal
		4	Start / Stop	Input signal
		5	Run / Brake	Input signal
		6	Direction	Output signal
		7	Alarm reset	Output signal
		8	Speed	Output signal
		9	Alarm	Output signal
		10	Int. speed	Int. potentiometer input signal
		11	GND	Power supply and signal ground
4	Hall sensor	1	3.3V	3.3V output for hall sensor supply
		2	GND	Power supply and signal ground
		3	H3	Hall sensor signal 3
		4	H2	Hall sensor signal 2
		5	H1	Hall sensor signal 1
5	Motor Connectors	1	W	Motor Coil phase3 / W
		2	V	Motor Coil phase2 / V
		3	U	Motor Coil phase1 / U
6	Power Connectors	1	24V	Power supply input
		2	GND	Power supply and signal ground
7	Dip switch	1,2	Pole Select	Motor Pole select
		8	Potentiometer	Ext / Int Potentiometer type select
※8	Communication Port	1	GND	RS-485 (※ OPTION)
		2	485 +	
		3	485 -	
※9	ENC	1~4		ENCODER Input Connector (※ OPTION)



SPECIFICATION

Model	Voltage (V)	Rated Power(W)	External Size(W x D x H)
HS-BLSD24	24V	100	148x83x32
HS-BLSD24-CU30	12, 24V		

CONNECTION TABLE

No.	Function	Pin	Label	Description
1	Power input	-	-	AC85~265V(+/-10%, 50/60HZ)
2	Battery input terminal	-	-	DC24V
3	Power output terminals	1	GND	DC28V
		2	GND	DC28V
4	Sensor Contact Input	1	-	IN
		2	-	COM
		3	-	OUT
		4	-	COM
5	Safety Sensor Contact Input	1	-	SAFETY
		2	-	COM
6	Constant Output Terminals	1	-	LOCK+/LOCK-
		2	-	LOCK+/LOCK-
7	DISPLAY	-	-	Displaying input signals, functions, set items, and set values
8	SLIDE SWITCH	-	-	Open Left / Right
9	Settings switch	1	MODE	Select a setting
		2	DOWN	Adjust settings
		3	UP	Adjust settings
10	Terminals for communication	-	-	Using communication features
11	Terminals for Extending Functionality	-	-	Use when extending functionality
12	FIRE Terminals	-	-	For use with fire protection (5~24V AC/DC)
13	Motor Terminals	-	-	Motor Connection (20V / 90W)
14	Encoder terminals	-	-	Connecting Motors



SPECIFICATION

Model	Voltage (V)	Rated Power(W)	External Size(W x D x H)
HSG-ADC-200			246x63x43

HSG BLDC GEARED MOTOR



SPECIAL TYPE DC GEARED MOTOR

□ Automatic Sliding Door

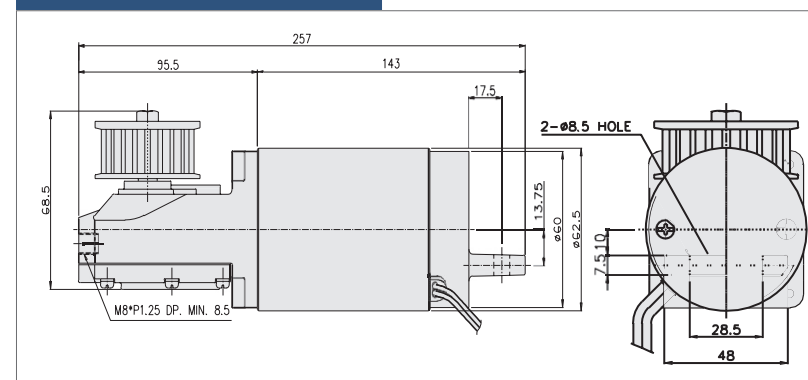


FEATURES

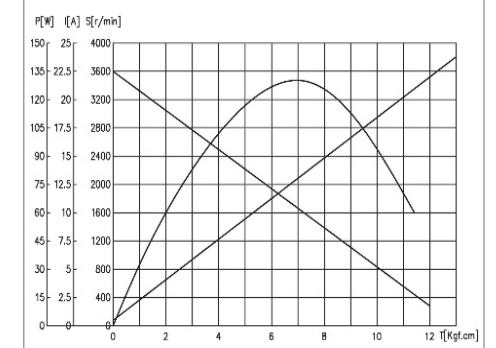
- Low price & slim size design
- High efficiency
- Small size & light weight
- Wide operation temp. range



DIMENSIONS



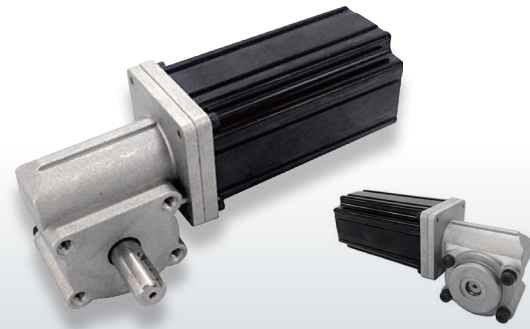
CHARACTERISTIC CURVE



SPECIFICATION

Model	Voltage (VDC)	Geared Motor				Motor Only					Weight (kg)
		Gear Ratio	No Load		No Load		At Rated Load			Output (W)	
			Speed (rpm)	Current (A)	Speed (rpm)	Current (A)	Speed (rpm)	Torque (kgf.cm)	Current (A)		
HGM6-6024A	24	1:12	300	1.4	3600	1.4	2950	2.0	4.5	60	1.8

□ Automatic Sliding Door

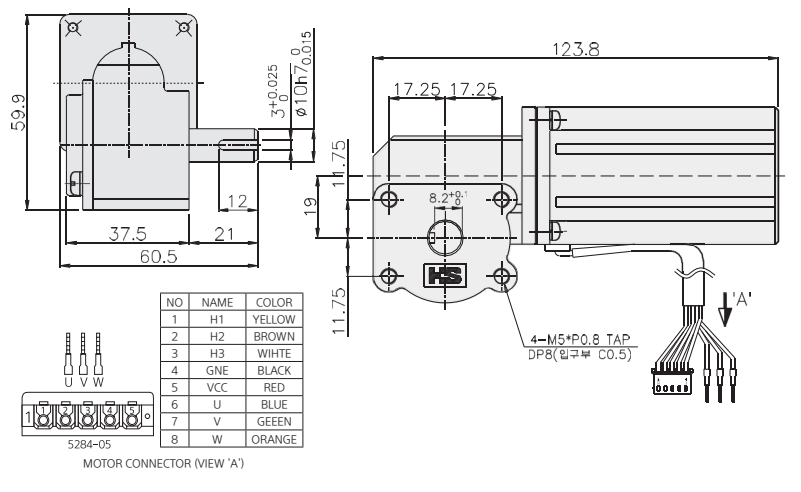


FEATURES

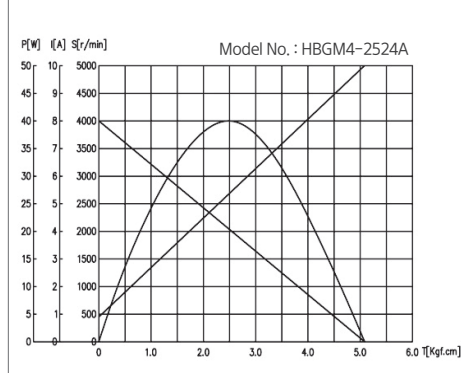
- Smallest & Compact Size
- Non-fixed for Minimize noise and vibration
- Using manually in case of Power failure (Less Cogging Load)
- Less Power consumption



DIMENSIONS



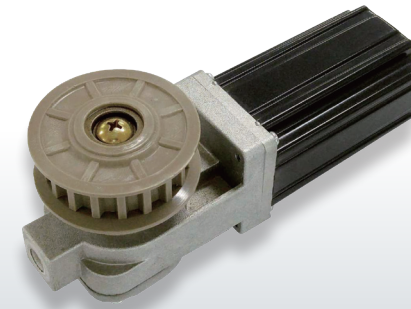
CHARACTERISTIC CURVE



SPECIFICATION

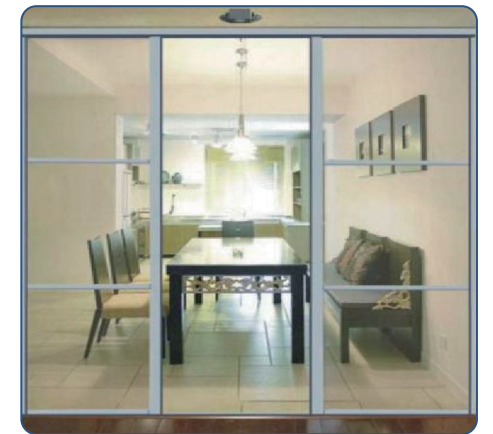
Model	Voltage (VDC)	Geared Motor				Motor Only					Weight (kg)
		Gear Ratio	No Load		No Load		At Rated Load			Output (W)	
			Speed (rpm)	Current (A)	Speed (rpm)	Current (A)	Speed (rpm)	Torque (kgf.cm)	Current (A)		
HBGM4-2024A	24	1:14.5	276	0.6	4000	0.5	3000	0.7	1.5	20	0.62

□ Automatic Sliding Door

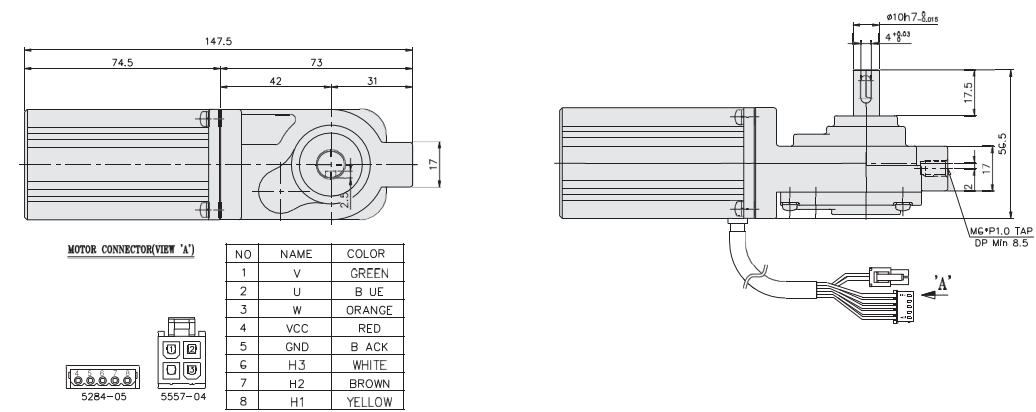


FEATURES

- Smallest & Compact Size
- Non-fixed for Minimize noise and vibration
- Using manually in case of Power failure (Less Cogging Load)
- Less Power consumption



DIMENSIONS



SPECIFICATION

Model	Voltage (VDC)	Geared Motor				Motor Only					Weight (kg)
		Gear Ratio	No Load		No Load		At Rated Load			Output (W)	
			Speed (rpm)	Current (A)	Speed (rpm)	Current (A)	Speed (rpm)	Torque (kgf.cm)	Current (A)		
HBGM4-2012A	12	1:12.8	320	1.8	4100	1.2	3000	0.65	3.0	20	0.62

□ Automatic Sliding Door

□ 42 Geared Motor for Automatic Sliding Door



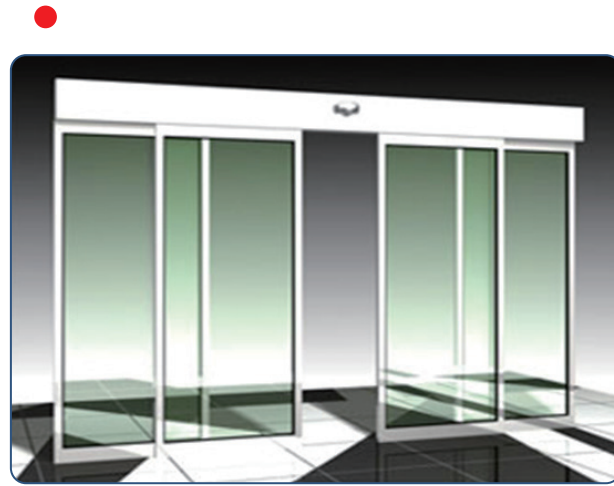
FEATURES

- Low Noise & High Torque
- Small size & Light Weight
- Fast response for Open/Close Timing
- Optimization of manufacturing
- Price competitiveness

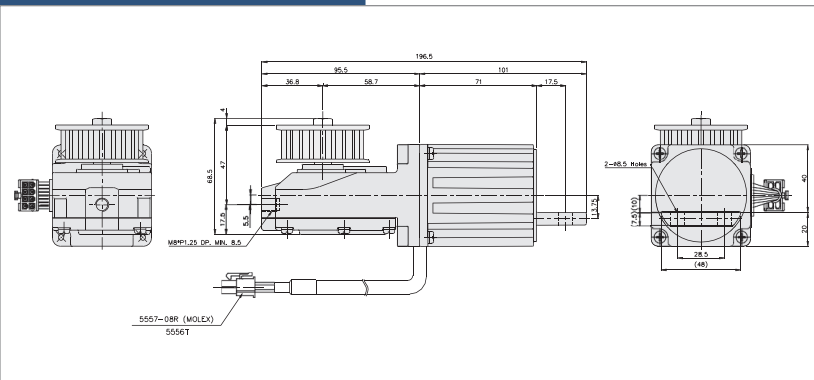


FEATURES

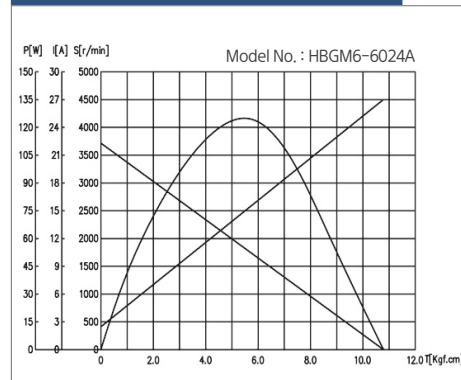
- Features & Advantages
- Low price & slim size design
- High efficiency
- Small size & light weight
- Wide operation temp. range



DIMENSIONS



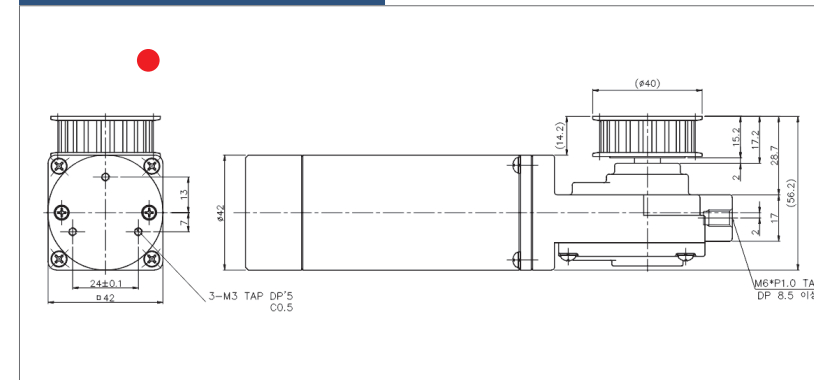
CHARACTERISTIC CURVE



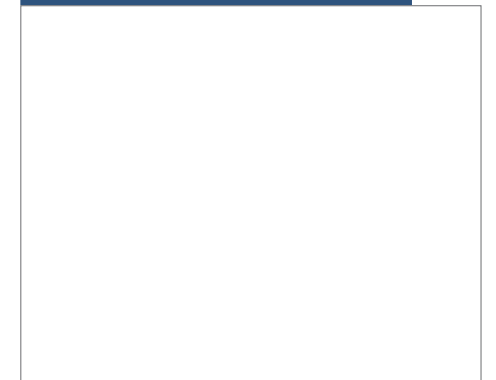
SPECIFICATION

Model	Voltage (VDC)	Geared Motor				Motor Only					Weight (kg)
		Gear Ratio	No Load		No Load		At Rated Load			Output (W)	
			Speed (rpm)	Current (A)	Speed (rpm)	Current (A)	Speed (rpm)	Torque (kgf.cm)	Current (A)		
HBGM6-6024A	24	1:12	300	1.4	3600	1.4	3,000	2.0	4.5	60	1.2

DIMENSIONS



CHARACTERISTIC CURVE



SPECIFICATION

Model	Voltage (VDC)	Geared Motor				Motor Only					Weight (kg)
		Gear Ratio	No Load		No Load		At Rated Load			Output (W)	
			Speed (rpm)	Current (A)	Speed (rpm)	Current (A)	Speed (rpm)	Torque (kgf.cm)	Current (A)		
HGM4-2012A	12	1:12.8	297	1	3800	0.5	3000	0.65	1.5	20	850

□ 42 Gear Ratio 1 / 502.6

□ Geared Motor for SUV Automatic Side Step



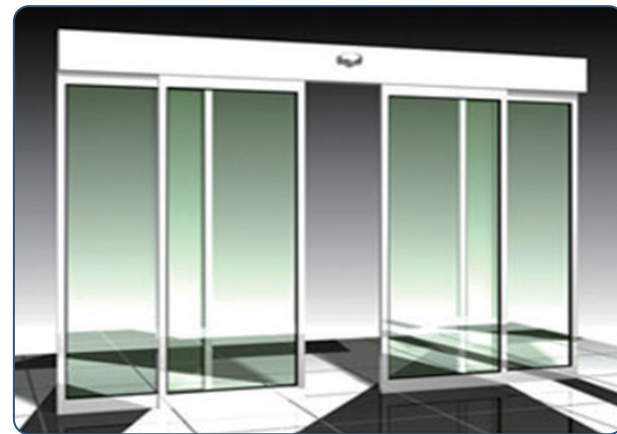
FEATURES

- Compact size design
- Minimize vibration and noise
- Minimizing power consumption

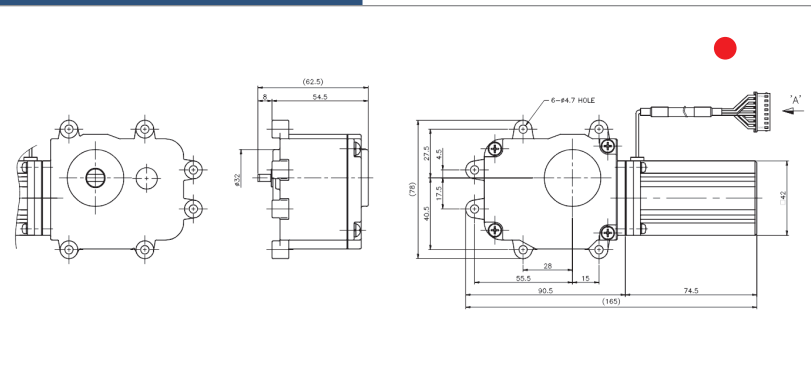


FEATURES

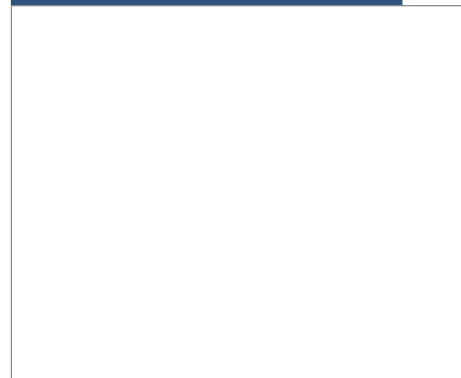
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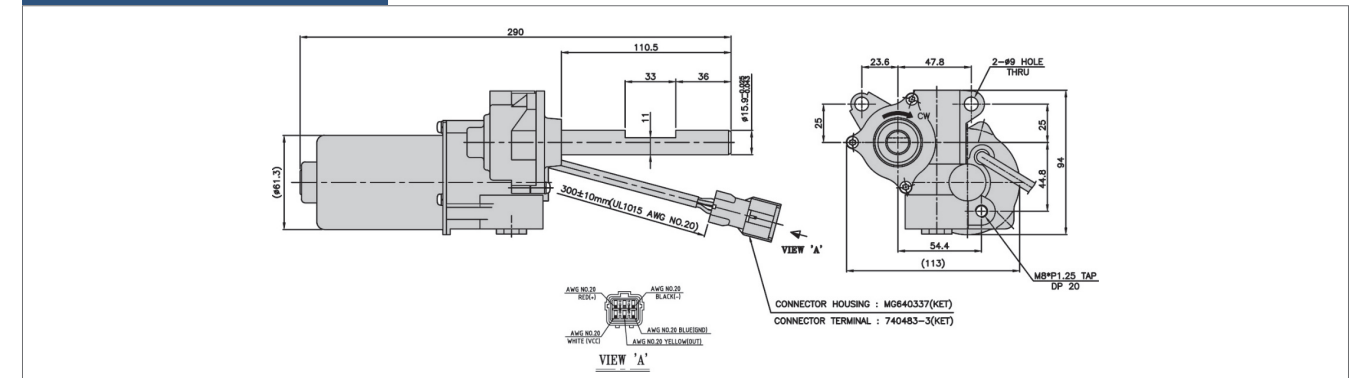
DIMENSIONS



CHARACTERISTIC CURVE



DIMENSIONS



SPECIFICATION

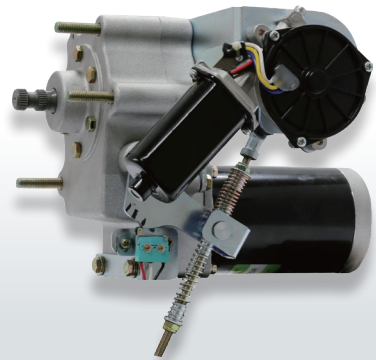
Model	Voltage (VDC)	Geared Motor				Motor Only					Weight (kg)
		Gear Ratio	No Load		No Load		At Rated Load			Output (W)	
			Speed (rpm)	Current (A)	Speed (rpm)	Current (A)	Speed (rpm)	Torque (kgf.cm)	Current (A)		
HBGM4-2524A	24	1:502.6	8.4	0.8	4200	0.8	3,000	0.8	2.5	25	1.2

SPECIFICATION

Model	Voltage (VDC)	Geared Motor				Motor Only					Weight (kg)
		Gear Ratio	No Load		No Load		At Rated Load			Output (W)	
			Speed (rpm)	Current (A)	Speed (rpm)	Current (A)	Speed (rpm)	Torque (kgf.cm)	Current (A)		
HGM6-3512A	12	1:162	20	2.0	3,300	2.0	2600	1.6	4.5	35	1.95
HGM6-4012A	12	1:162	13.5	1.4	2200	1.0	2000	2.0	6	40	1.95

□ Automatic Steering of Golf Car

□ Hollow Shaft(Flat type) Gear Head & DLDC MOTOR Unit



FEATURES

- Compact (Weight & Size) design
- Smooth handling of golf-car
- High efficiency
- Low noise & low vibration

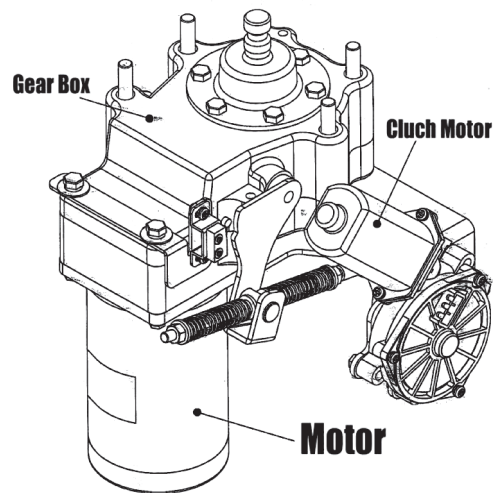


100W, 200W /
Gear Ratio 1/5 ~ 1/200

FEATURES

- Saving of installation space
- High Strength gearhead
- Low Noise
- A variety of drive controller option

DIMENSIONS



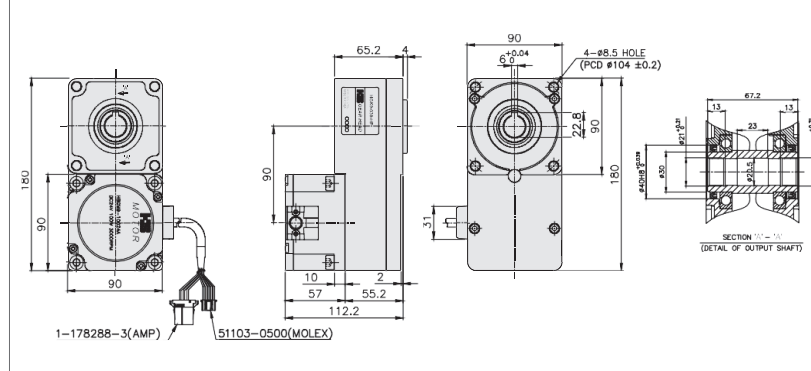
SPECIFICATION

Model	Voltage (VDC)	Geared Motor							Weight (kg)
		Gear Ratio	No Load		At Rated Load			Output (W)	
			Speed (rpm)	Current (A)	Speed (rpm)	Torque (kgf.cm)	Current (A)		
Clutch Motor	30	1:72	44	0.9	3.1	19	1.6	6	0.8

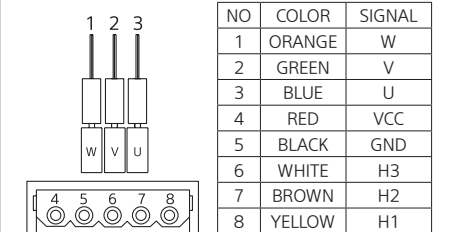
SPECIFICATION

Model	Voltage (VDC)	Geared Motor				Motor Only					Weight (kg)
		Gear Ratio	No Load		At Rated Load			Output (W)			
			Speed (rpm)	Current (A)	Speed (rpm)	Current (A)	Speed (rpm)		Torque (kgf.cm)	Current (A)	
HGM8-13048A	48	1:10	325	1.0	3,250	0.8	2,950	4.3	4.5	130	6.1

DIMENSIONS



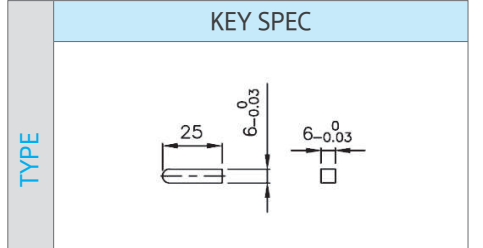
CIRCUIT DIAGRAM



SPECIFICATION

Model	Output (W)	Voltage (V)	At Rated Load		
			Speed (rpm)	Torque (kgf.cm)	Current (A)
HBGM9-10024A	100	24	3000	3.4	6.0
HBGM9-20024A	200	24	3000	6.4	12

MOTOR OUTPUT SHAFT



Maximum permissible torque of Gear Head

Model	Gear Ratio		5	10	15	20	30	50	100	200
			Geared Motor : HBGM9-10024A HBGM9-100310A	Speed (No Load)	rpm	600	300	200	150	100
Gear Head : HGK9- ()	Torque	N·m	1.46	2.92	4.37	5.83	8.75	14.58	29.15	58.30
		kgf.cm	14.6	29.2	43.7	58.3	87.5	145.8	291.5	583.0
Geared Motor : HBGM9-10024A HBGM9-100310A	Speed (No Load)	rpm	600	300	200	150	100	60	30	15
		Torque	N·m	2.74	5.49	8.23	10.97	16.46	27.44	54.87
	kgf.cm		17.4	54.9	82.3	109.7	164.6	274.4	548.7	680

HSG GEAREHEAD



HSG HSG CO., LTD.
HYOSEONG GEARED MOTOR

HSG GENERAL GEARHEAD

HSG HSG CO., LTD.
HYOSEONG GEARED MOTOR

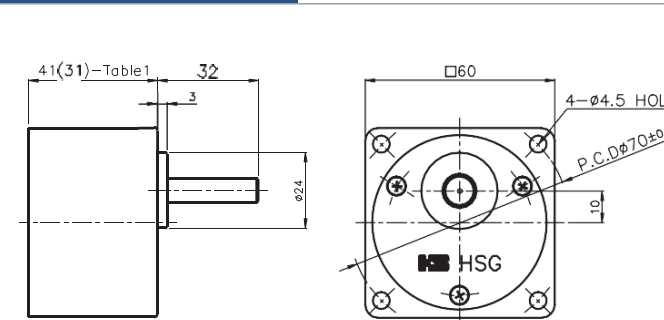
□60 Gear Ratio 1/3 ~ 1/250



FEATURES

- Gear Ratios optimized for DC motor
- High Efficiency
- Low Noise & Low Vibration
- A wide range of applications

DIMENSIONS



※ TABLE 1

Gear Ratio	SIZE
1:03 ~ 1:18	31mm
1:20 ~ 1:250	41mm

GEAR HEAD OUTPUT SHAFT

D-CUT TYPE HG6-()D	
KET TYPE HG6-()K	
KET SPEC	

Maximum permissible torque of Gear Head

Model	Gear Ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	250	
Geared Motor: HGM6-1024A	Speed (No Load)	rpm	1100	917	660	550	440	367	330	264	220	183	165	132	110	92	83	66	55	44	37	33	28	22	18	17	13
	Gear Head: HG6-()	Torque	N·m	0.08	0.10	0.13	0.16	0.20	0.24	0.27	0.33	0.40	0.48	0.48	0.60	0.72	0.87	0.96	1.08	1.30	1.62	1.92	2.17	2.60	3	3	3
			kgf·cm	0.8	1.0	1.3	1.6	2.0	2.4	2.7	3.3	4.0	4.8	4.8	6.0	7.2	8.7	9.6	10.8	13.0	16.2	19.5	21.7	26.0	30	30	30
Geared Motor: HGM6-1524A	Speed (No Load)	rpm	1133	944	680	567	453	378	340	272	227	189	170	136	113	94	85	68	57	45	38	34	28	23	19	17	14
	Gear Head: HG6-()	Torque	N·m	0.12	0.15	0.20	0.24	0.30	0.36	0.41	0.51	0.61	0.73	0.73	0.91	1.09	1.31	1.46	1.64	1.97	2.46	2.95	3	3	3	3	3
			kgf·cm	1.2	1.5	2.0	2.4	3.0	3.6	4.1	5.1	6.1	7.3	7.3	9.1	10.9	13.1	14.6	16.4	19.7	24.6	29.5	30	30	30	30	30
Geared Motor: HGM6-3024A	Speed (No Load)	rpm	1133	944	680	567	453	378	340	272	227	189	170	136	113	94	85	68	57	45	38	34	28	23	19	17	14
	Gear Head: HG6-()	Torque	N·m	0.24	0.29	0.41	0.49	0.61	0.73	0.81	1.01	1.22	1.46	1.46	1.82	2.19	2.62	26.2	29.2	3	3	3	3	3	3	3	3
			kgf·cm	2.4	2.9	4.1	4.9	6.1	7.3	8.1	10.1	12.2	14.6	14.6	18.2	21.9	26.2	29.2	30	30	30	30	30	30	30	30	30

■ Green color indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. Others indicate rotation in the opposite direction.

□ 60 Gear Ratio : 1/5 ~ 1/200

□ 80 Gear Ratio : 1/3 ~ 1/200



FEATURES

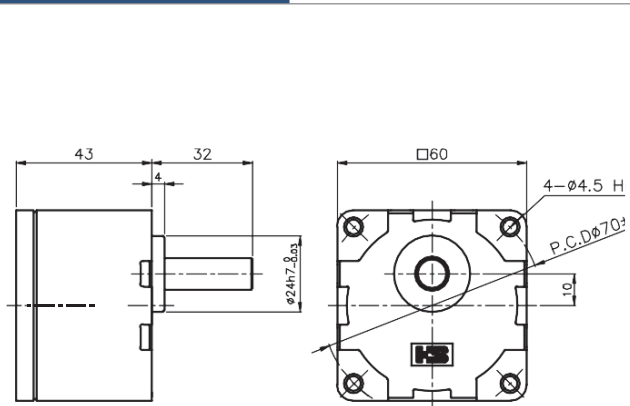
- Gear Ratios optimized for BLDC motor
- Minimize vibration and noise
- Minimize cogging load
- A wide range of applications



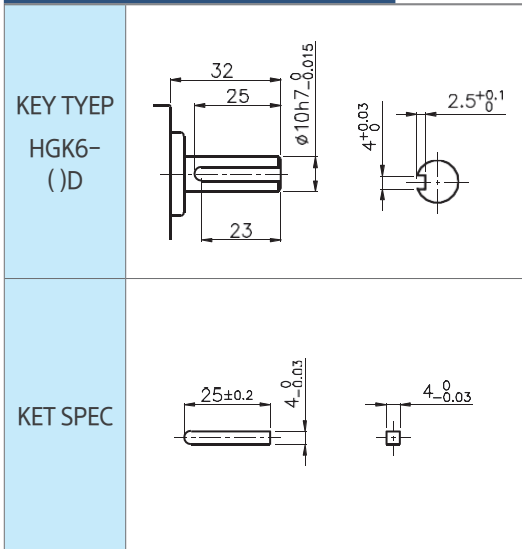
FEATURES

- Gear Ratios optimized for DC motor
- High Efficiency
- Low Noise & Low Vibration
- A wide range of applications

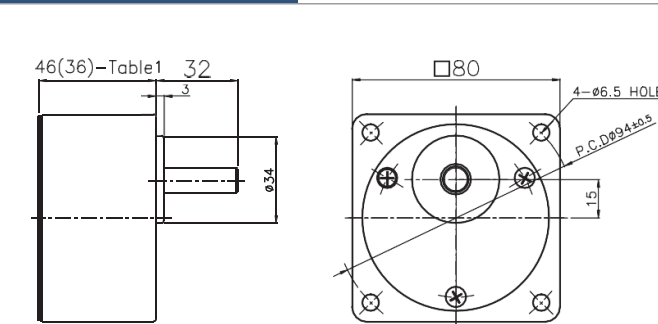
DIMENSIONS



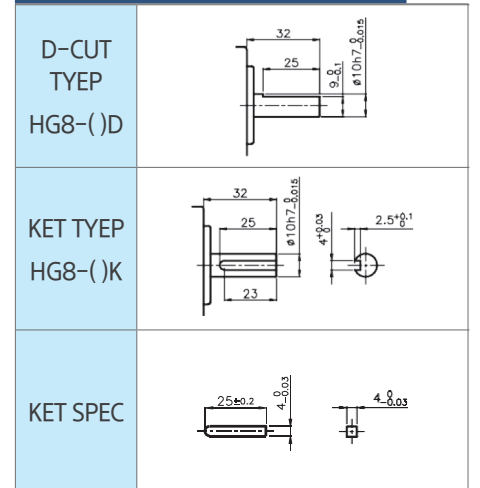
GEAR HEAD OUTPUT SHAFT



DIMENSIONS



GEAR HEAD OUTPUT SHAFT



※ TABLE 1

Gear Ratio	SIZE
1:03 ~ 1:18	36mm
1:20 ~ 1:200	46mm

Maximum permissible torque of Gear Head

Model	Gear Ratio	5	10	15	20	30	50	100	200	
Geared Motor: HBGM6-6024A HBGM6-60310A	Speed (No Load)	rpm	600	300	200	150	100	60	30	15
	Gear Head: HGK6-()	Torque	N·m	0.90	1.81	2.71	3.61	5.14	6	6
		kgf·cm	9.0	18.1	27.1	36.1	51.4	60	60	60

■ Green color indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. Others indicate rotation in the opposite direction.

Maximum permissible torque of Gear Head

Model	Gear Ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	
Geared Motor: HGM6-2524A	Speed (No Load)	rpm	1100	917	660	550	440	367	330	264	220	183	165	132	110	92	83	66	55	44	37	33	28	22	18	17
	Gear Head: HG8-()	Torque	N·m	0.19	0.23	0.32	0.39	0.49	0.58	0.65	0.81	0.97	1.17	1.17	1.46	1.75	2.10	2.33	2.62	3.15	3.94	4.72	5.25	6.30	7.78	8
		kgf·cm	1.9	2.3	3.2	3.9	4.9	5.8	6.5	8.1	9.7	11.7	11.7	14.6	17.5	21.0	23.3	26.2	31.5	39.4	47.2	52.5	63.0	77.8	80	80
Geared Motor: HGM6-6024A	Speed (No Load)	rpm	1167	972	700	583	467	389	350	280	233	194	175	140	117	97	88	70	58	47	39	35	29	23	19	18
	Gear Head: HG8-()	Torque	N·m	0.49	0.58	0.81	0.97	1.22	1.46	1.62	2.03	2.43	2.92	2.92	3.65	4.37	5.25	5.83	6.56	7.78	8	8	8	8	8	8
		kgf·cm	4.9	5.8	8.1	9.7	12.2	14.6	16.2	20.3	24.3	29.2	29.2	36.5	43.7	52.5	58.3	65.6	77.8	80	80	80	80	80	80	80
Geared Motor: HGM8-9024A	Speed (No Load)	rpm	1100	917	660	550	440	367	330	264	220	183	165	132	110	92	83	66	55	44	37	33	28	22	18	17
	Gear Head: HG8-()	Torque	N·m	0.73	0.87	1.22	1.46	1.82	2.19	2.43	3.04	3.65	4.37	4.37	5.47	6.56	7.78	8	8	8	8	8	8	8	8	8
		kgf·cm	7.3	8.7	12.2	14.6	18.2	21.9	24.3	30.4	36.5	43.7	43.7	54.7	65.6	77.8	80	80	80	80	80	80	80	80	80	80

■ Green color indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. Others indicate rotation in the opposite direction.

□ 80 Gear Ratio : 1/5 ~ 1/200

□ 90 Gear Ratio : 1/5 ~ 1/200



FEATURES

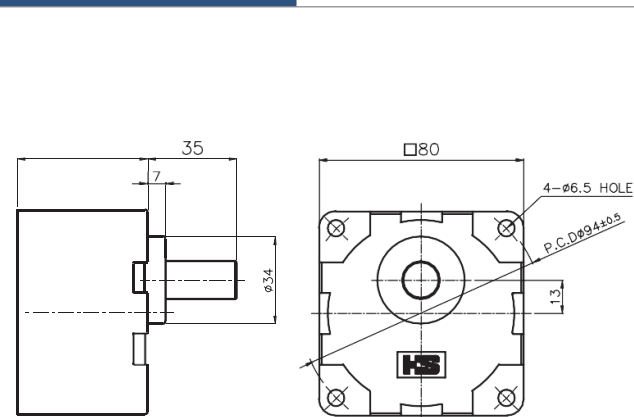
- Gear Ratios optimized for BLDC motor
- Minimize vibration and noise
- Minimize cogging load
- A wide range of applications



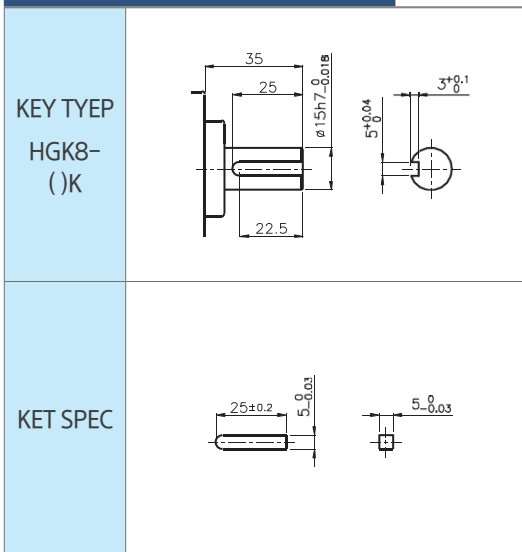
FEATURES

- Gear Ratios optimized for BLDC motor
- Minimize vibration and noise
- Minimize cogging load
- A wide range of applications

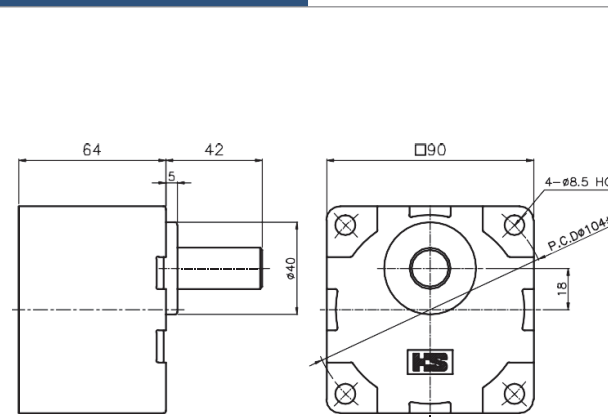
DIMENSIONS



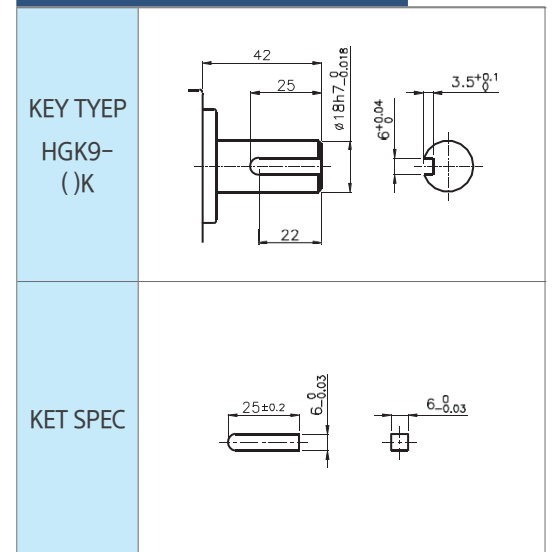
GEAR HEAD OUTPUT SHAFT



DIMENSIONS



GEAR HEAD OUTPUT SHAFT



Maximum permissible torque of Gear Head

Model	Gear Ratio	5	10	15	20	30	50	100	200	
Geared Motor: HBGM8-10024A HBGM8-100310A	Speed (No Load)	rpm	600	300	200	150	100	60	30	15
	Torque	N-m	1.53	3.07	4.60	6.14	8.75	14.58	16	16
kgf.cm		15.3	30.7	46.0	61.4	87.5	145.8	160	160	

■ Green color indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. Others indicate rotation in the opposite direction.

Maximum permissible torque of Gear Head

Model	Gear Ratio	5	10	15	20	30	50	100	200	
Geared Motor: HBGM9-10024A HBGM9-100310A	Speed (No Load)	rpm	600	300	200	150	100	60	30	15
	Torque	N-m	1.53	3.07	4.60	6.14	8.75	14.58	29.15	30
kgf.cm		15.3	30.7	46.0	61.4	87.5	145.8	291.5	300	

■ Green color indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. Others indicate rotation in the opposite direction.

□ 115 Gear Ratio : 1/5 ~ 1/40

□ 90 Gear Ratio : 1/5 ~ 1/200



FEATURES

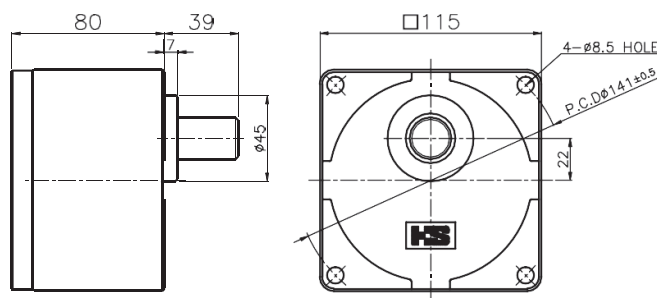
- Gear Ratios optimized for DC motor
- High Efficiency
- Low Noise & Low Vibration
- Replaceable brushes



FEATURES

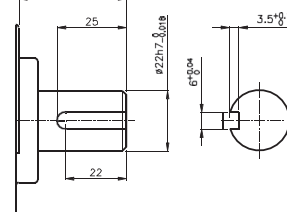
- Saving of installation space
- High Strength gearhead
- Low Noise

DIMENSIONS

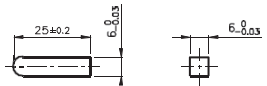


GEAR HEAD OUTPUT SHAFT

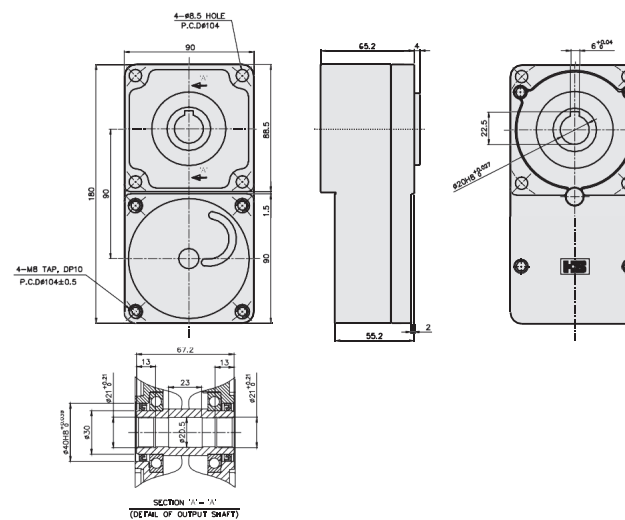
KEY TYPE
HGK11-
()K



KET SPEC

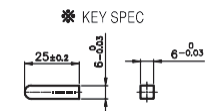


DIMENSIONS



GEAR HEAD OUTPUT SHAFT

KET SPEC



Maximum permissible torque of Gear Head

Model	Gear Ratio		5	10	15	20	25	30	40
Geared Motor: HGM11-25024A	Speed (No Load)	rpm	760	380	253	190	152	127	95
		Torque	N·m	3.36	6.72	9.08	12.10	15.13	18.15
Gear Head: HG11-()	kgf·cm		33.6	67.2	90.8	121.0	151.3	181.5	242.0
		Geared Motor: HGM11-80024A	Speed (No Load)	rpm	760	380	253	190	152
Torque	N·m			9.88	19.76	26.68	35.58	44.47	50.00
	Gear Head: HGK11-()	kgf·cm	98.8	197.6	266.8	355.8	444.7	500.0	500.0

■ Green color indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. Others indicate rotation in the opposite direction.

Maximum permissible torque of Gear Head

Model	Gear Ratio		5	10	15	20	30	50	100	200
Geared Motor: HBGM9-10024A	Speed (No Load)	rpm	600	300	200	150	100	60	30	15
		Torque	N·m	1.46	2.92	4.37	5.83	8.75	14.58	29.15
Gear Head: HGK9-()HP	kgf·cm		14.6	29.2	43.7	58.3	87.5	145.8	291.5	583.0
		Geared Motor: HBGM9-20024A	Speed (No Load)	rpm	600	300	200	150	100	60
Gear Head: HGK9-()HP	Torque			N·m	2.74	5.49	8.23	10.97	16.46	27.44
		kgf·cm	68	27.4	54.9	82.3	109.7	164.6	274.4	548.7