

Introduction

고도의 정보화 및 자동화 사회는 작고 수 많은 DC MOTOR에 의해 지탱되고 있습니다.

우리의 일상 생활에 사용되는 모터를 종합하여 볼 경우 얼마나 다양하고 광범위하게 DC MOTOR가 생활과 밀접하게 연관되어 있는가를 이해하게 될 것입니다.

삶의 질을 향상시키는 필수불가결한 정보화, 사무자동화, 금융자동화, HOME-AUTOMATION, 지능로봇, 반도체장비, SYSTEM VENDING MACHINE, 의료기기, 차량 내비게이션 등의 제어시스템에 사용되는 DC MOTOR와 TIMMING BELT를 관련 제조회사에 경쟁력있는 품질과 가격조건으로 공급함으로써 산업발전에 이바지 하고자 합니다.

(주)디엔지워드

대표이사.

Patent



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IG MOTOR SERIES

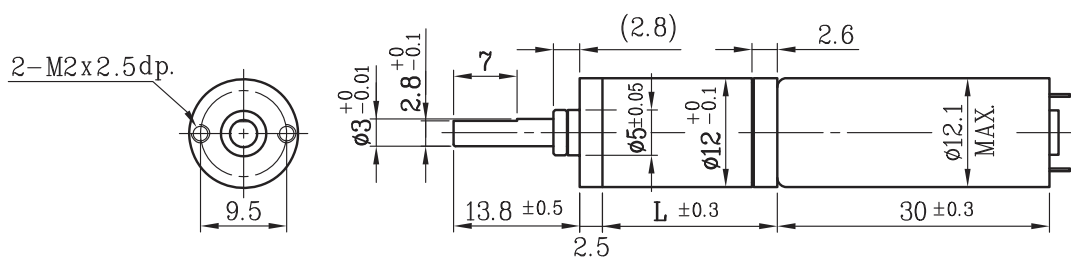
IG-12GM 01 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

■ Dimension

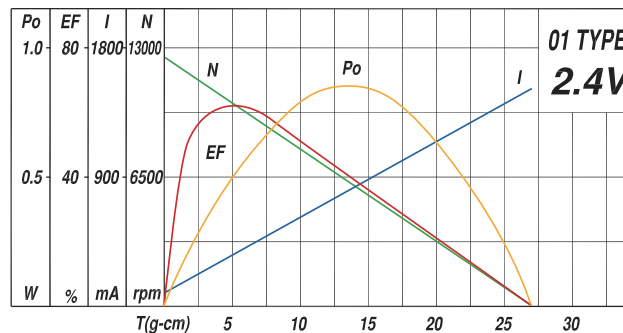


■ Geared Motor

감속기 길이 (mm) Gear Head L	12,5	16,1	19,4	22,7	26,0	29,3	
중량(g)	26,6	27,7	29,8	31,9	34	36,1	
감속비 Reduction ratio	1/4	1/16	1/64	1/256	1/1024	1/4096	
Type 2,4v	정격토크(gf-cm) Rated torque	20	70	250	840	2000	2000
	정격 회전수(RPM) Rated speed	2470	620	155	38	10	2,8
	무부하 회전수(RPM) No Load speed	3125	781	195	48	12	3

■ Motor

01Type Motor (DC 2.4v)		
정격 토크 Rated torque	6,0	(gf-cm)
정격 회전수 Rated speed	10,100	(RPM)
정격 전류 Rated current	450	(mA)
무부하 회전수 No load speed	12,500	(RPM)
무부하 전류 No load current	130	(mA)
정격 출력 Rated output	0,62	(W)



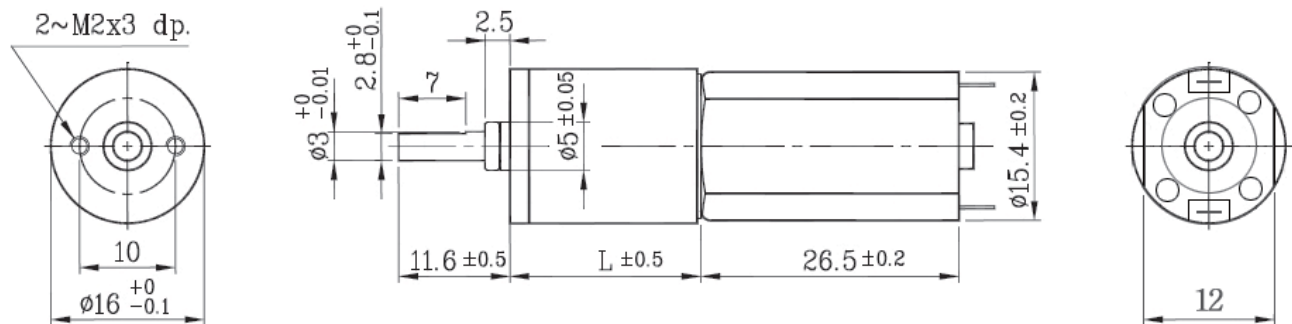
IG-16GM 02/03 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension

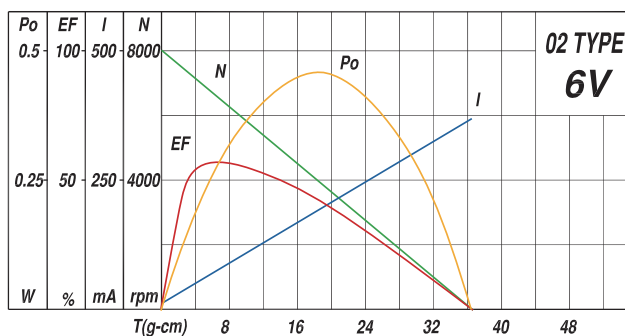


Geared Motor

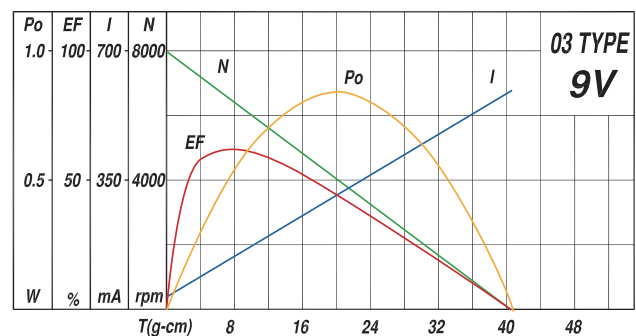
감속기 길이 (mm) Gear Head L		15,05	18,7			22,35					26					29,65					
중량(g)		27	41	41	41	45	45	45	45	49	49	49	49	49	53	53	53	53	53	53	
감속비 Reduction ratio		1/4	1/14	1/19	1/29	1/62	1/72	1/84	1/104	1/128	1/157	1/231	1/316	1/370	1/455	1/561	1/690	1/1014	1/1621	1/1996	1/3027
02 Type 6v	정격토크(gf-cm) Rated torque	26	72	99	150	270	320	370	460	560	699	855	1165	1360	1680	2050	2500	3000	3000	3000	3000
	정격 회전수(RPM) Rated speed	1460	455	333	219	105	90	77	63	51	41	28	20	17	14	11,5	9,2	6,2	4,1	3,5	2,3
	무부하 회전수(RPM) No Load speed	2000	571	421	275	129	111	95	76	62	50	34	25	21	17	14	11	7,8	4,9	4	2,6
03 Type 9v	정격토크(gf-cm) Rated torque	24	68	94	140	255	300	350	430	530	660	800	1100	1250	1550	1900	2400	2800	3000	3000	3000
	정격 회전수(RPM) Rated speed	1450	450	330	217	104	90	76	62	50	41	28	20	17	14	11,5	9,2	6,2	3,5	2,9	1,9
	무부하 회전수(RPM) No Load speed	2000	571	421	275	129	111	95	76	62	50	34	25	21	17	14	11	7,8	4,9	4	2,6

Motor

02Type Motor (DC 6v)		
정격 토크 Rated torque	7.4	(gf-cm)
정격 회전수 Rated speed	6,550	(RPM)
정격 전류 Rated current	160	(mA)
무부하 회전수 No load speed	8,000	(RPM)
무부하 전류 No load current	65	(mA)
정격 출력 Rated output	0.498	(W)



03Type Motor (DC 9v)		
정격 토크 Rated torque	7.0	(gf-cm)
정격 회전수 Rated speed	6,500	(RPM)
정격 전류 Rated current	110	(mA)
무부하 회전수 No load speed	8,000	(RPM)
무부하 전류 No load current	50	(mA)
정격 출력 Rated output	0.473	(W)



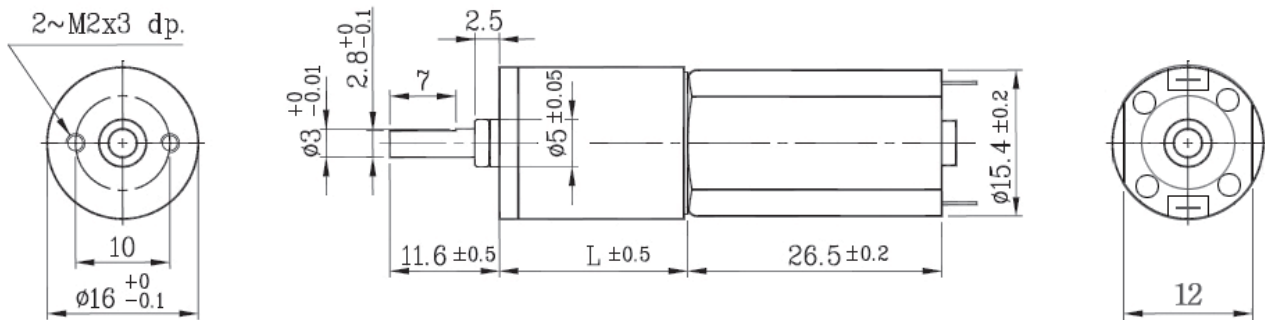
IG-16GM 04/05 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

■ Dimension



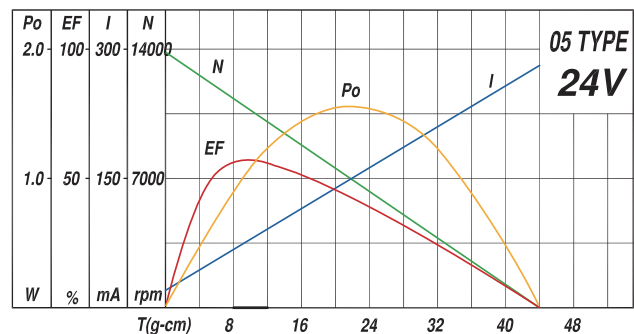
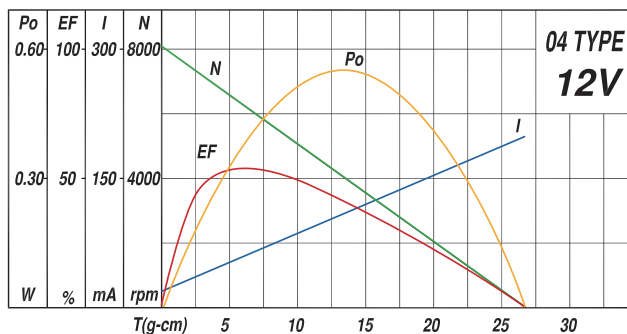
■ Geared Motor

감속기 길이 (mm) Gear Head L		15,05	18,7			22,35					26					29,65					
중량(g)		27	41	41	41	45	45	45	45	49	49	49	49	49	53	53	53	53	53	53	
감속비 Reduction ratio		1/4	1/14	1/19	1/29	1/62	1/72	1/84	1/104	1/128	1/157	1/231	1/316	1/370	1/455	1/561	1/690	1/1014	1/1621	1/1996	1/3027
04 Type 12v	정격토크(gf-cm) Rated torque	21	60	82	120	220	260	300	380	460	550	700	950	1100	1350	1700	2100	2400	3000	3000	3000
	정격 회전수(RPM) Rated speed	1380	430	315	205	100	85	73	59	48	39	26	19	16	13,5	11	8,9	6	3,8	3,2	2,3
	무부하 회전수(RPM) No Load speed	2000	571	421	275	129	111	95	76	62	50	34	25	21	17	14	11	7,8	4,9	4	2,6
05 Type 24v	정격토크(gf-cm) Rated torque	31	85	120	180	330	380	450	560	690	850	1000	1400	1600	2000	2500	3000	3000	3000	3000	3000
	정격 회전수(RPM) Rated speed	2450	760	555	365	170	150	130	105	85	69	47	34	29	24	19,5	15,9	11	7,2	6,1	4,1
	무부하 회전수(RPM) No Load speed	3375	964	710	465	217	187	160	129	105	86	58	42	36	30	24	19	13	8,3	6,7	4,4

■ Motor

04Type Motor (DC 12v)		
정격 토크 Rated torque	6.1	(gf-cm)
정격 회전수 Rated speed	6,200	(RPM)
정격 전류 Rated current	85	(mA)
무부하 회전수 No load speed	8,000	(RPM)
무부하 전류 No load current	50	(mA)
정격 출력 Rated output	0,394	(W)

05Type Motor (DC 24v)		
정격 토크 Rated torque	9.0	(gf-cm)
정격 회전수 Rated speed	11,000	(RPM)
정격 전류 Rated current	90	(mA)
무부하 회전수 No load speed	13,500	(RPM)
무부하 전류 No load current	50	(mA)
정격 출력 Rated output	1,026	(W)



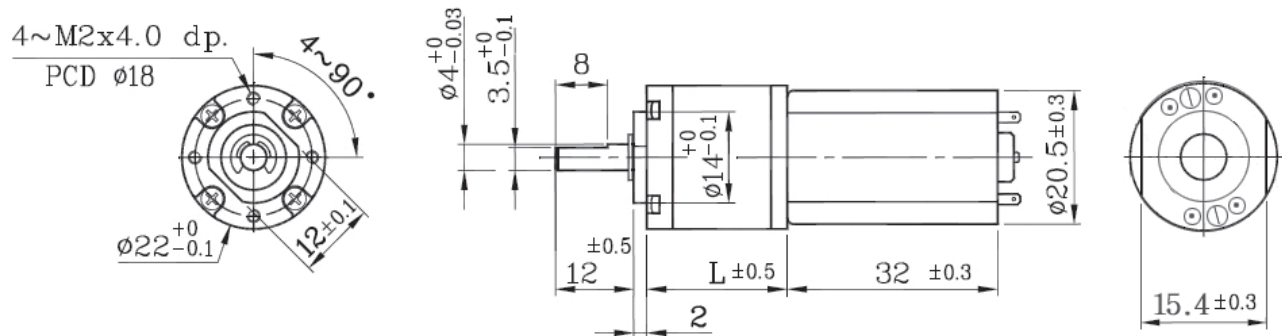
IG-22GM 01/02 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension



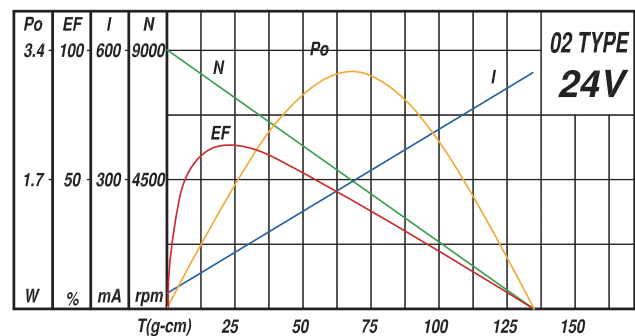
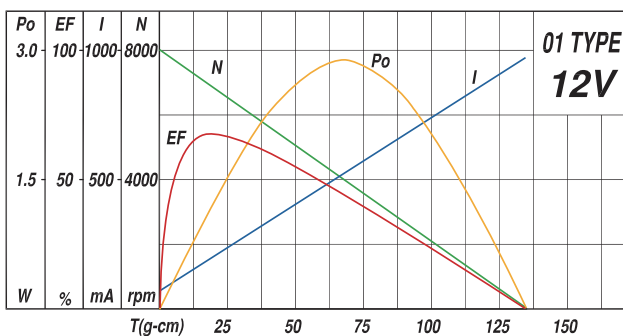
Geared Motor

감속기 길이 (mm) Gear Head L		14,4	18,05			21,7				25,35					29						
중량(g)		58	62			66				71					75						
감속비 Reduction ratio		1/4	1/14	1/16	1/19	1/53	1/62	1/72	1/84	1/104	1/198	1/231	1/270	1/316	1/370	1/455	1/742	1/1014	1/1249	1/1621	1/1996
01 Type 12v	정격토크(gf-cm) Rated torque	77	215	250	295	695	810	950	1100	1370	2100	2500	2500	2500	2500	3000	3000	3000	3000	3000	
	정격 회전수(RPM) Rated speed	1497	470	407	348	127	109	93	79	64	34	29	25	22	19	15,5	9,5	7,4	6,0	4,6	3,8
	무부하 회전수(RPM) No Load speed	2000	571	500	421	150	129	111	95	76	40	34	29	25	21	17	10,7	7,8	6,4	4,9	4
02 Type 24v	정격토크(gf-cm) Rated torque	77	215	250	295	695	810	950	1100	1370	2100	2500	2500	2500	2500	3000	3000	3000	3000	3000	
	정격 회전수(RPM) Rated speed	1650	518	450	384	140	120	103	88	71	37	32	28	23,5	21	17,5	10,5	8,0	6,6	5,0	4,2
	무부하 회전수(RPM) No Load speed	2250	642	562	473	169	145	125	107	86	45	39	33	28	24	19,7	12,1	8,8	7,2	5,5	4,5

Motor

01Type Motor (DC 12v)		
정격 토크 Rated torque	22	(gf-cm)
정격 회전수 Rated speed	6,700	(RPM)
정격 전류 Rated current	200	(mA)
무부하 회전수 No load speed	8,000	(RPM)
무부하 전류 No load current	70	(mA)
정격 출력 Rated output	1,5	(W)

02Type Motor (DC 24v)		
정격 토크 Rated torque	22	(gf-cm)
정격 회전수 Rated speed	7,400	(RPM)
정격 전류 Rated current	110	(mA)
무부하 회전수 No load speed	9,000	(RPM)
무부하 전류 No load current	40	(mA)
정격 출력 Rated output	1.7	(W)



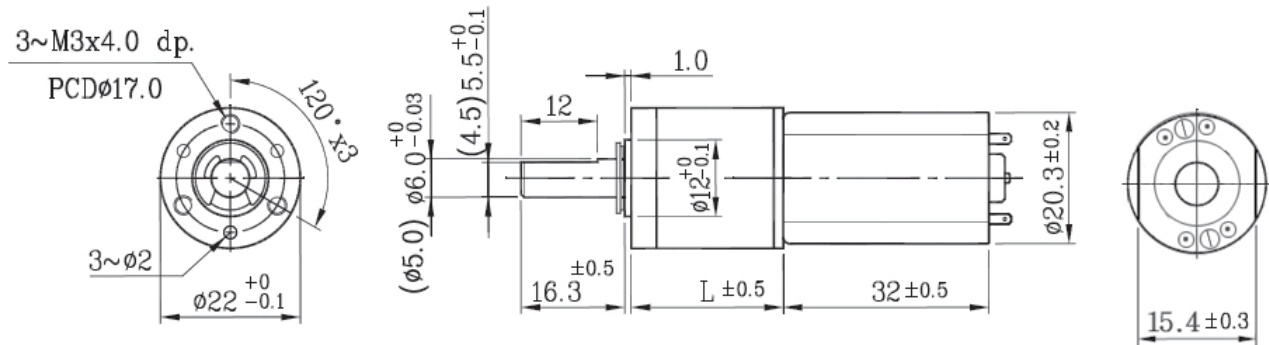
IG-22CGM 01/02 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension



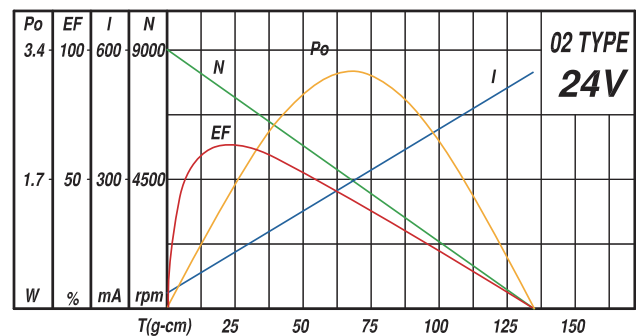
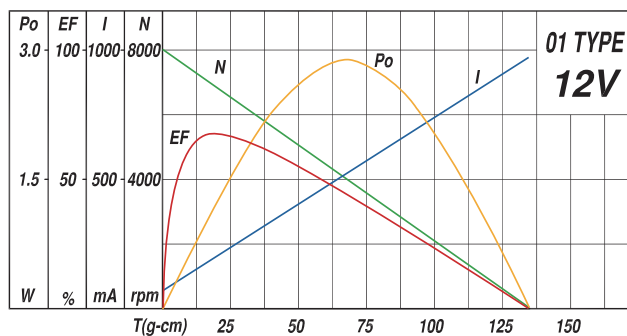
Geared Motor

감속기 길이 (mm) Gear Head L		23,3	29,5				35,7				41,9					48,1					
중량(g)		78	83				90				97					104					
감속비 Reduction ratio		1/5	1/18	1/20	1/25	1/66	1/77	1/90	1/110	1/136	1/246	1/336	1/393	1/484	1/597	1/735	1/1079	1/1475	1/2124	1/3968	
01 Type 12v	정격토크(gf-cm) Rated torque	80	270	310	380	850	1000	1150	1400	1700	2600	3700	4200	5000	5000	5000	6000	6000	6000	6000	
	정격 회전수(RPM) Rated speed	1405	375	325	260	101	86	74	60	48	26	19	16	13,8	11,5	9,5	6,7	5,0	3,4	1,8	
	무부하 회전수(RPM) Rated speed	1600	444	400	320	121	104	88	73	59	32,5	23,8	20,3	16,5	13,4	10,8	7,4	5,4	3,7	2,0	
02 Type 24v	정격토크(gf-cm) Rated torque	80	270	310	380	850	1000	1150	1400	1700	2600	3700	4200	5000	5000	5000	6000	6000	6000	6000	
	정격 회전수(RPM) Rated speed	1550	414	355	290	110	95	82	66	53	29	21	18	15,3	12,7	10,5	7,4	5,5	3,9	1,95	
	무부하 회전수(RPM) Rated speed	1800	500	450	360	136	117	100	82	66	36,6	26,8	22,9	18,6	15	12,2	8,3	6,1	4,2	2,26	

Motor

01Type Motor (DC 12v)		
정격 토크 Rated torque	22	(gf-cm)
정격 회전수 Rated speed	6,700	(RPM)
정격 전류 Rated current	200	(mA)
무부하 회전수 No load speed	8,000	(RPM)
무부하 전류 No load current	70	(mA)
정격 출력 Rated output	1,5	(W)

02Type Motor (DC 24v)		
정격 토크 Rated torque	22	(gf-cm)
정격 회전수 Rated speed	7,400	(RPM)
정격 전류 Rated current	110	(mA)
무부하 회전수 No load speed	9,000	(RPM)
무부하 전류 No load current	40	(mA)
정격 출력 Rated output	1.7	(W)



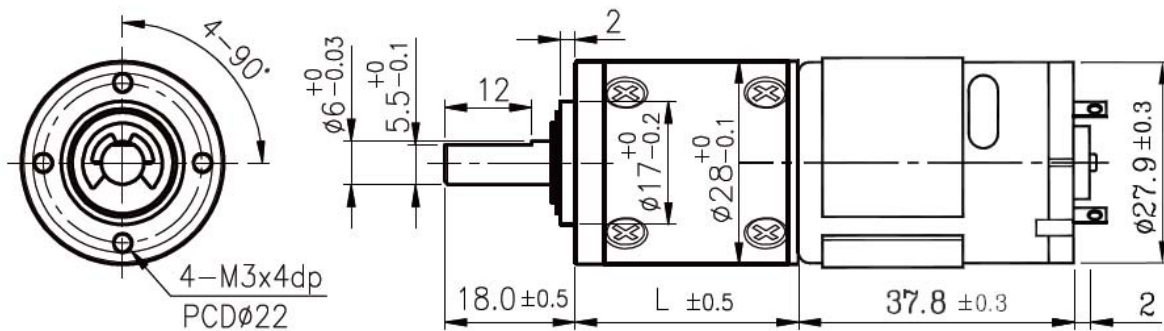
IG-28GM 01/02 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension

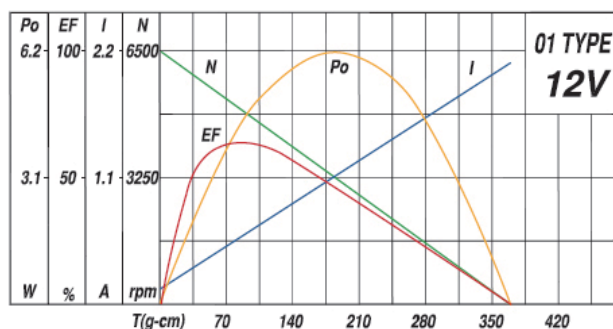


Geared Motor

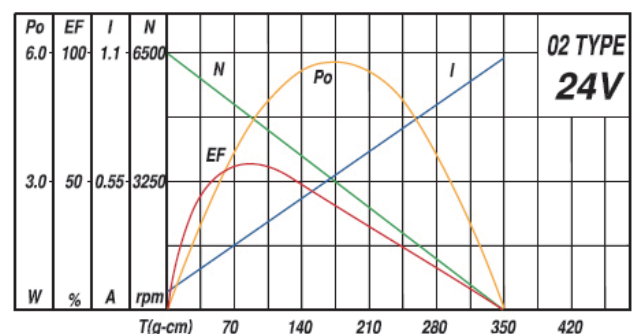
감속기 길이 (mm) Gear Head L		24.5		30.9				37.3				43.7				
중량(g)		145		157				170				182				
감속비 Reduction ratio		1/4	1/5	1/14	1/19	1/27	1/35	1/51	1/71	1/100	1/139	1/189	1/264	1/516	1/721	1/939
01 TYPE 12V	Rated Torque (Kgf.cm)	0.25	0.3	0.75	1	1.4	1.9	2.3	3.3	4.6	6.5	7.3	10	10	10	10
	Rated Speed (RPM)	1322	995	373	270	195	151	104	74	53	38	28	20	11.2	8.3	5.6
	No Load Speed (RPM)	1625	1300	464	342	240	185	127	91	65	46	34	24	12.5	9	6.9
02 TYPE 24V	Rated Torque (Kgf.cm)	0.25	0.3	0.7	1	1.4	1.8	2.2	3.1	4.4	6.1	6.9	9.7	10	10	10
	Rated Speed (RPM)	1312	990	370	265	191	150	103	74	53	38	28	20	11.2	8.3	5.5
	No Load Speed (RPM)	1625	1300	464	342	240	185	127	91	65	46	34	24	12.5	9	6.9

Motor

01TYPE MOTOR(DC 12V)		
정격 토크 Rated torque	78	(gf-cm)
정격 회전수 Rated speed	5,290	(RPM)
정격 전류 Rated current	530	(mA)
무부하 회전수 No load speed	6,500	(RPM)
무부하 전류 No load current	150	(mA)
정격 출력 Rated output	4.22	(W)



02TYPE MOTOR(DC 24V)		
정격 토크 Rated torque	74	(gf-cm)
정격 회전수 Rated speed	5,250	(RPM)
정격 전류 Rated current	250	(mA)
무부하 회전수 No load speed	6,500	(RPM)
무부하 전류 No load current	85	(mA)
정격 출력 Rated output	3.97	(W)



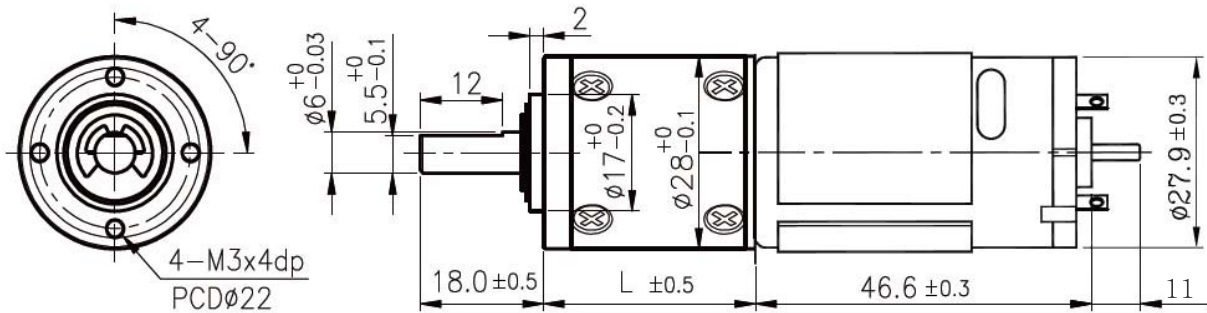
IG-28GM 05/06 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension



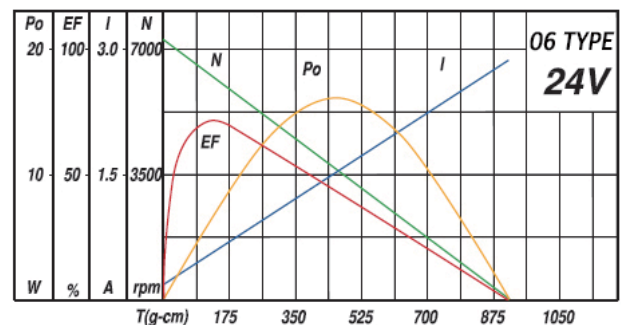
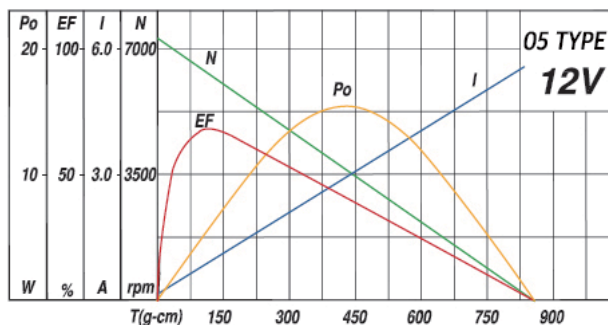
Geared Motor

감속기 길이 (mm) Gear Head L	24.5		30.9				37.3				43.7				
중량(g)	177		190				202				214				
감속비 Reduction ratio	1/4	1/5	1/14	1/19	1/27	1/35	1/51	1/71	1/100	1/139	1/189	1/264	1/516	1/721	1/939
05 TYPE 12V	Rated Torque (Kgf.cm)	0.35	0.45	1.1	1.5	2.1	2.7	3.4	4.7	6.6	8	10	10	10	10
	Rated Speed (RPM)	1487	1140	430	310	221	170	117	83	60	44	32	24	12.9	9.5
	No Load Speed (RPM)	1625	1460	521	384	270	208	143	102	73	52	38	27	14	10
06 TYPE 24V	Rated Torque (Kgf.cm)	0.4	0.54	1.2	1.7	2.4	3.1	4	5.5	7.8	8	10	10	10	10
	Rated Speed (RPM)	1540	1170	445	320	229	176	121	87	62	45	34	25	13	9.6
	No Load Speed (RPM)	1825	1460	521	384	270	208	143	102	73	52	38	27	14	10

Motor

05TYPE MOTOR(DC 12V)		
정격 토크 Rated torque	110	(gf-cm)
정격 회전수 Rated speed	5,950	(RPM)
정격 전류 Rated current	900	(mA)
무부하 회전수 No load speed	7,300	(RPM)
무부하 전류 No load current	150	(mA)
정격 출력 Rated output	7	(W)

06TYPE MOTOR(DC 24V)		
정격 토크 Rated torque	130	(gf-cm)
정격 회전수 Rated speed	6,160	(RPM)
정격 전류 Rated current	500	(mA)
무부하 회전수 No load speed	7,300	(RPM)
무부하 전류 No load current	80	(mA)
정격 출력 Rated output	8.5	(W)



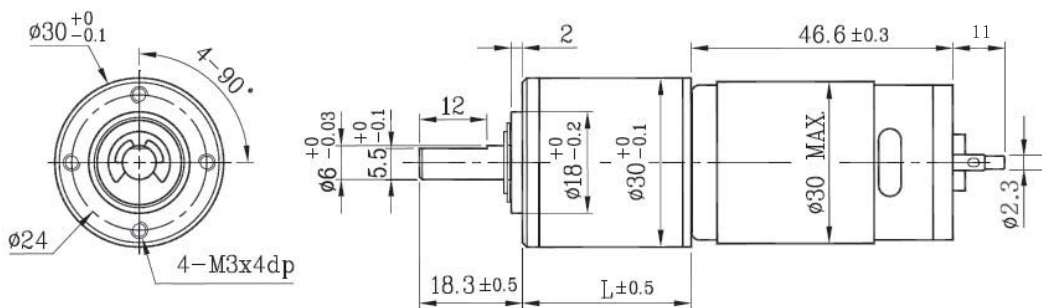
IG-30GM 03/04 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension



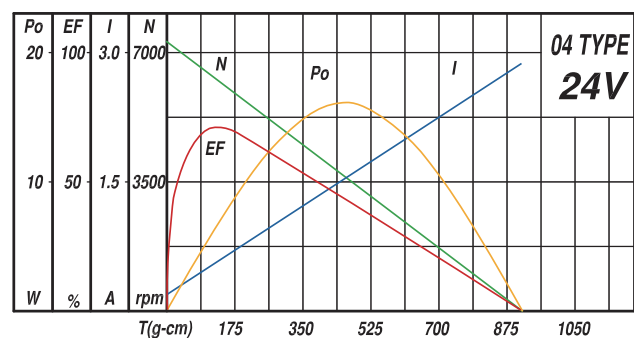
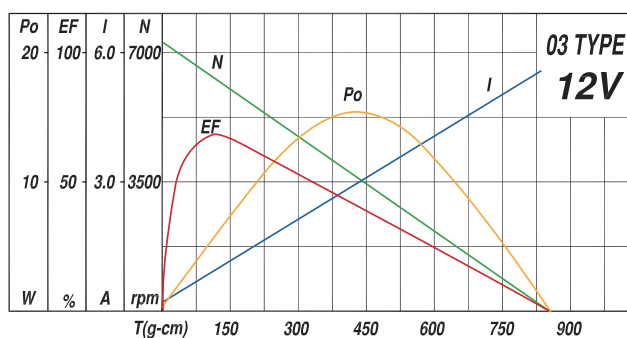
Geared Motor

감속기 길이 (mm) Gear Head L	23,6	30,0	36,4	42,8															
중량(g)	188	201	216	231															
감속비 Reduction ratio	1/5	1/14	1/19	1/27	1/51	1/71	1/100	1/139	1/189	1/264	1/516	1/721							
03 Type 12v	정격토크(kgf-cm) Rated torque	0,45	1,1	1,5	2,1	3,4	4,7	6,6	8	10	10	10	10						
	정격 회전수(RPM) Rated speed	1140	430	310	221	117	83	60	45	32	25	13,2	9,6						
	무부하 회전수(RPM) No Load speed	1460	521	384	270	143	102	73	52	38	27	14	10						
04 Type 24v	정격토크(kgf-cm) Rated torque	0,54	1,2	1,7	2,4	4,0	5,5	7,8	8	10	10	10	10						
	정격 회전수(RPM) Rated speed	1170	445	320	229	121	87	62	46	34,5	26	13,5	9,8						
	무부하 회전수(RPM) No Load speed	1460	521	384	270	143	102	73	52	38	27	14	10						

Motor

03Type Motor (DC 12v)		
정격 토크 Rated torque	110	(gf-cm)
정격 회전수 Rated speed	5,950	(RPM)
정격 전류 Rated current	900	(mA)
무부하 회전수 No load speed	7,300	(RPM)
무부하 전류 No load current	150	(mA)
정격 출력 Rated output	7,0	(W)

04Type Motor (DC 24v)		
정격 토크 Rated torque	130	(gf-cm)
정격 회전수 Rated speed	6,160	(RPM)
정격 전류 Rated current	500	(mA)
무부하 회전수 No load speed	7,300	(RPM)
무부하 전류 No load current	80	(mA)
정격 출력 Rated output	8,5	(W)



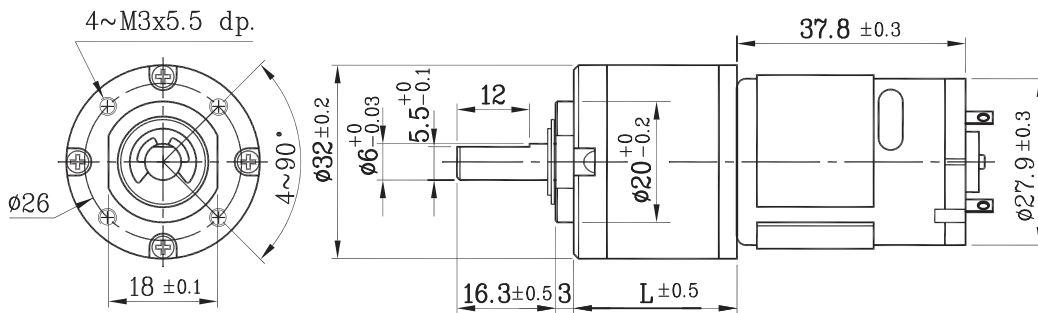
IG-32GM 01/02 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension

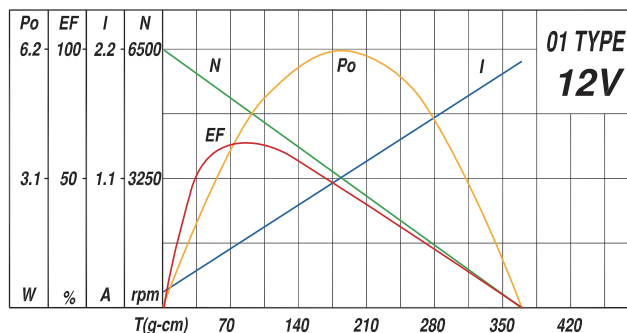


Geared Motor

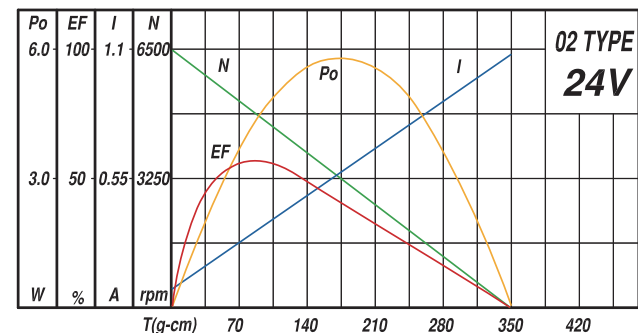
감속기 길이 (mm) Gear Head L		20.6	27				33.4				39.8				
중량(g)		174	194				219				245				
감속비 Reduction ratio		1/5	1/14	1/19	1/27	1/35	1/51	1/71	1/100	1/139	1/189	1/264	1/516	1/721	1/939
01 TYPE 12V	Rated Torque (Kgf.cm)	0.3	0.75	1	1.4	1.9	2.3	3.3	4.6	6.5	7.3	10	12	12	12
	Rated Speed (RPM)	995	373	270	195	151	104	74	53	38	28	20	11.2	8.3	5.6
	No Load Speed (RPM)	1300	464	342	240	185	127	91	65	46	34	24	12.5	9	6.9
02 TYPE 24V	Rated Torque (Kgf.cm)	0.3	0.75	1	1.4	1.8	2.2	3.1	4.4	6.1	6.9	9.7	12	12	12
	Rated Speed (RPM)	990	370	265	191	150	103	74	53	38	28	20	11.2	8.3	5.5
	No Load Speed (RPM)	1300	464	342	240	185	127	91	65	46	34	24	12.5	9	6.9

Motor

01Type Motor (DC 12v)		
정격 토크 Rated torque	78	(gf-cm)
정격 회전수 Rated speed	5,290	(RPM)
정격 전류 Rated current	530	(mA)
무부하 회전수 No load speed	6,500	(RPM)
무부하 전류 No load current	150	(mA)
정격 출력 Rated output	4.22	(W)



02Type Motor (DC 24v)		
정격 토크 Rated torque	74	(gf-cm)
정격 회전수 Rated speed	5,250	(RPM)
정격 전류 Rated current	250	(mA)
무부하 회전수 No load speed	6,500	(RPM)
무부하 전류 No load current	85	(mA)
정격 출력 Rated output	3.97	(W)



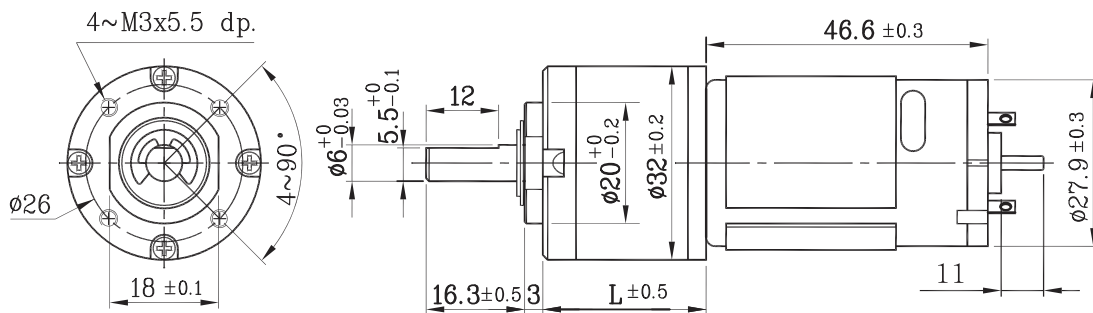
IG-32GM 03/04 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension

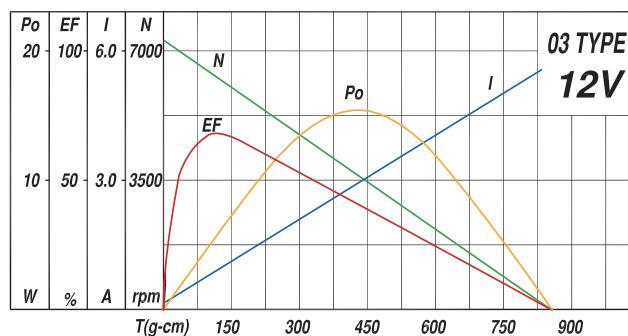


Geared Motor

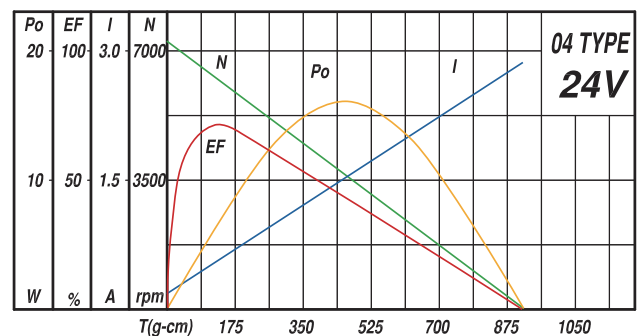
감속기 길이 (mm) Gear Head L		20.6				27				33.4				39.8			
중량(g)		211				231				256				282			
감속비 Reduction ratio		1/5	1/14	1/19	1/27	1/35	1/51	1/71	1/100	1/139	1/189	1/264	1/516	1/721	1/939		
03 TYPE 12V	Rated Torque (Kgf.cm)	0.45	1.1	1.5	2.1	2.6	3.4	4.7	6.6	9.1	10	12	12	12	12		
	Rated Speed (RPM)	1140	430	310	221	170	117	83	60	44	32	24	12.9	9.5	6.3		
	No Load Speed (RPM)	1460	521	384	270	208	143	102	73	52	38	27	14	10	7.7		
04 TYPE 24V	Rated Torque (Kgf.cm)	0.54	1.2	1.7	2.4	3.1	4	5.5	7.8	10	12	12	12	12	12		
	Rated Speed (RPM)	1170	445	320	229	176	121	87	62	45	34	25	13	9.6	6.5		
	No Load Speed (RPM)	1460	521	384	270	208	143	102	73	52	38	27	14	10	7.7		

Motor

03Type Motor (DC 12v)		
정격 토크 Rated torque	110	(gf-cm)
정격 회전수 Rated speed	5,950	(RPM)
정격 전류 Rated current	900	(mA)
무부하 회전수 No load speed	7,300	(RPM)
무부하 전류 No load current	150	(mA)
정격 출력 Rated output	7.0	(W)



04Type Motor (DC 24v)		
정격 토크 Rated torque	130	(gf-cm)
정격 회전수 Rated speed	6,160	(RPM)
정격 전류 Rated current	500	(mA)
무부하 회전수 No load speed	7,300	(RPM)
무부하 전류 No load current	80	(mA)
정격 출력 Rated output	8.5	(W)



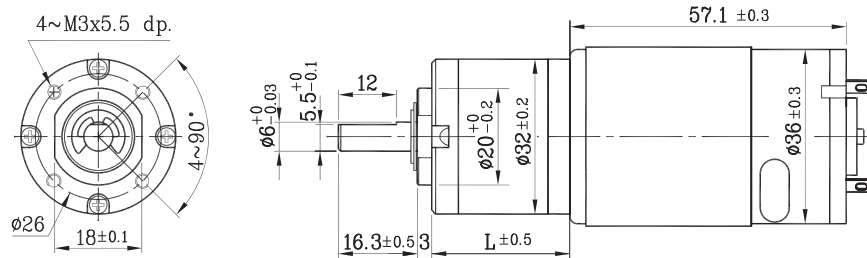
IG-32GM 05/06 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension



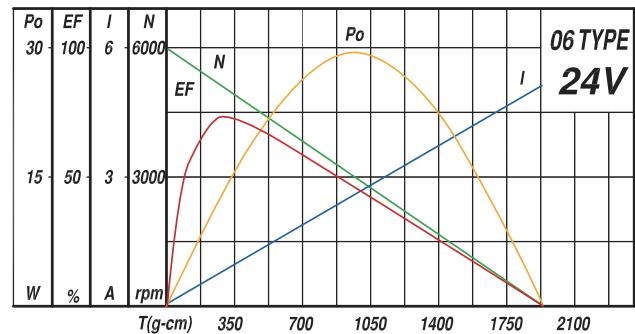
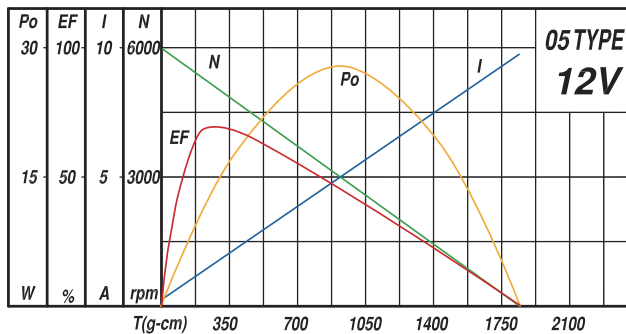
Geared Motor

감속기 길이 (mm) Gear Head L		22.1				28.5				34.9				41.3			
중량(g)		328				362				396				430			
감속비 Reduction ratio		1/5				1/14				1/19				1/27			
05 TYPE 12V	Rated Torque (Kgf.cm)	1	2.4	3.3	4.7	7.6	8	10	10	12	12	12	12	12	12	12	12
	Rated Speed (RPM)	960	359	257	183	97	71.5	52	39	29	21	11	8	8	8	8	8
	No load Speed (RPM)	1200	428	315	222	117	84	60	43	31	22	11.6	8.3	8.3	8.3	8.3	8.3
06 TYPE 24V	Rated Torque (Kgf.cm)	1	2.3	3.2	4.5	7.3	8	10	10	12	12	12	12	12	12	12	12
	Rated Speed (RPM)	990	375	268	192	101	74.5	54	40	29.5	22	11.5	8	8	8	8	8
	No load Speed (RPM)	1200	428	315	222	117	84	60	43	31	22	11.6	8.3	8.3	8.3	8.3	8.3

Motor

05 Type Motor (DC 12v)		
정격 토크 Rated torque	250	(gf-cm)
정격 회전수 Rated speed	4,930	(RPM)
정격 전류 Rated current	1,600	(mA)
무부하 회전수 No load speed	6,000	(RPM)
무부하 전류 No load current	250	(mA)
정격 출력 Rated output	12.8	(W)

06 Type Motor (DC 24v)		
정격 토크 Rated torque	240	(gf-cm)
정격 회전수 Rated speed	5,150	(RPM)
정격 전류 Rated current	750	(mA)
무부하 회전수 No load speed	6,000	(RPM)
무부하 전류 No load current	130	(mA)
정격 출력 Rated output	12.7	(W)



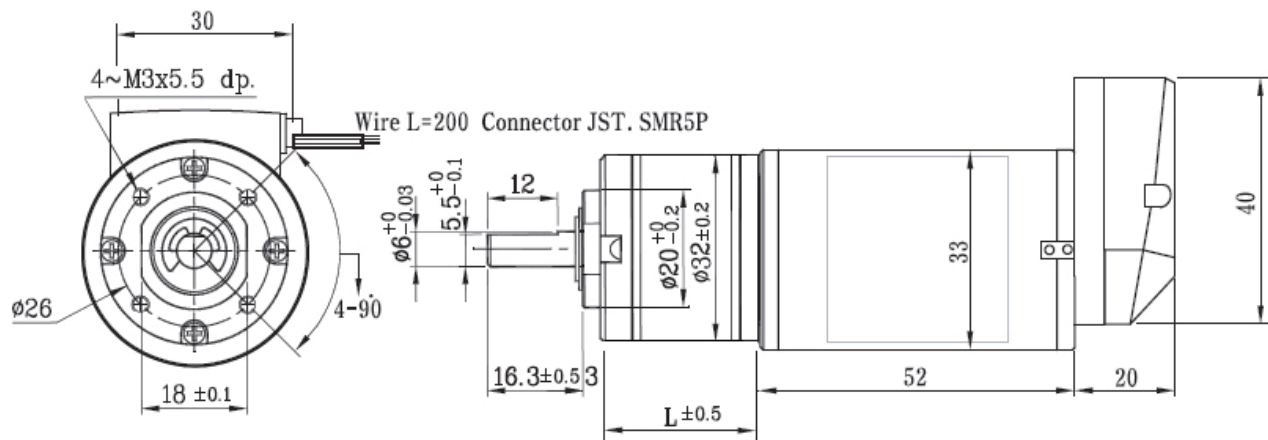
IG-32GM 07/09 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

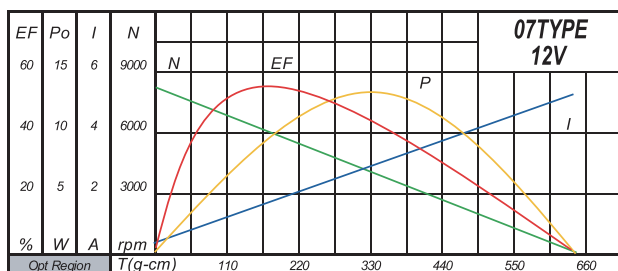
Dimension



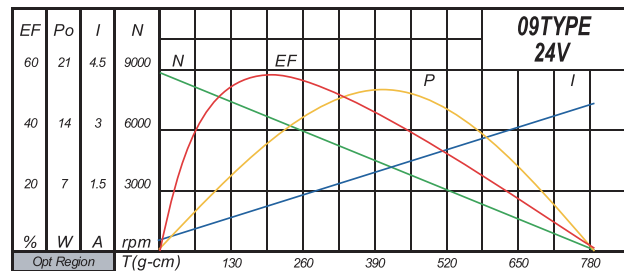
감속기 길이 (mm) Gear Head L	22,1	28,5	34,9	41,3															
중량(g)	423	457	491	525															
감속비 Reduction ratio	1/5	1/14	1/19	1/27	1/51	1/71	1/100	1/139	1/189	1/264	1/516	1/721							
07 Type 12v	정격토크(kgf-cm) Rated torque	0,476	1,16	1,58	2,24	3,6	5	7,1	9,9	11,2	12	12	12						
	정격 회전수(RPM) Rated speed	1320	471	347	244	129	93	66	47,5	35	25	12,8	9,15						
	무부하 회전수(RPM) No Load speed	1620	578	426	300	158	114	81	58	42	30	15,6	11,2						
09 Type 24v	정격토크(kgf-cm) Rated torque	0,5	1,3	1,75	2,5	4	5,6	7,9	11	12	12	12	12						
	정격 회전수(RPM) Rated speed	1489	532	392	276	146	105	74,5	53,5	39	28	14,4	10,3						
	무부하 회전수(RPM) No Load speed	1790	639	471	331	175	126	89	64	47	34	17,3	12,4						

Motor

07Type Motor (DC 12v)			
정격 토크Rated torque	119	(gf-cm)	
정격 회전수Rated speed	6,601	(RPM)	
정격 전류Rated current	1,209	(mA)	
무부하 회전수No load speed	8,100	(RPM)	
무부하 전류No load current	260	(mA)	
정격 출력Rated output	8,07	(W)	



09Type Motor (DC 24v)			
정격 토크Rated torque	132	(gf-cm)	
정격 회전수Rated speed	7,445	(RPM)	
정격 전류Rated current	712	(mA)	
무부하 회전수No load speed	8,950	(RPM)	
무부하 전류No load current	140	(mA)	
정격 출력Rated output	10,09	(W)	



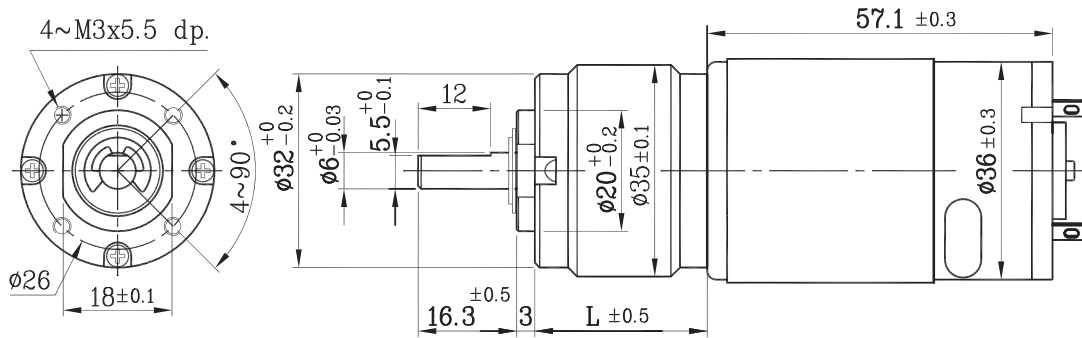
IG-32PGM 01/02 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension



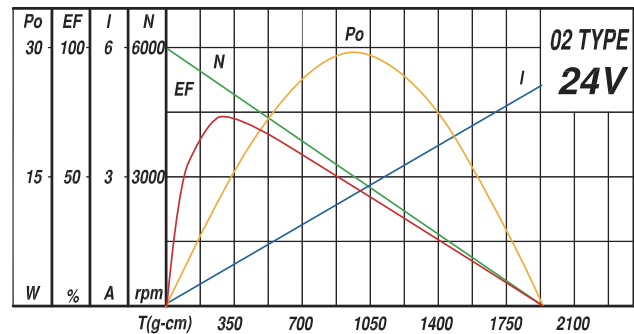
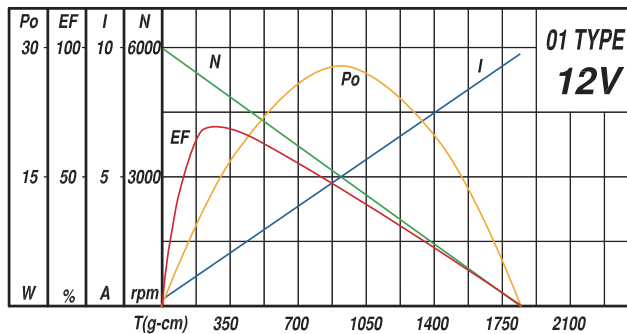
Geared Motor

감속기 길이 (mm) Gear Head L	22.1	28.5	34.9	41.3															
중량(g)	328	362	396	430															
감속비 Reduction ratio	1/5	1/14	1/19	1/27	1/51	1/71	1/100	1/139	1/189	1/264	1/516	1/721							
Type	01	정격토크(kgf-cm) Rated torque	1.0	2.4	3.3	4.7	7.6	8	10	10	12	12	12	12					
	정격 회전수(RPM) Rated speed	950	359	257	183	97	71.5	52	39	29	21	11	8						
	무부하 회전수(RPM) No Load speed	1200	428	315	222	117	84	60	43	31	22	11.6	8.3						
Type	02	정격토크(kgf-cm) Rated torque	1.0	2.3	3.2	4.5	7.3	8	10	10	12	12	12	12					
	정격 회전수(RPM) Rated speed	990	375	268	192	101	74.5	54	40	29.5	22	11.5	8						
	무부하 회전수(RPM) No Load speed	1200	428	315	222	117	84	60	43	31	22	11.6	8.3						

Motor

01Type Motor (DC 12v)			
정격 토크 Rated torque	250	(gf-cm)	
정격 회전수 Rated speed	4,930	(RPM)	
정격 전류 Rated current	1,600	(mA)	
무부하 회전수 No load speed	6,000	(RPM)	
무부하 전류 No load current	250	(mA)	
정격 출력 Rated output	12.8	(W)	

02Type Motor (DC 24v)			
정격 토크 Rated torque	240	(gf-cm)	
정격 회전수 Rated speed	5,150	(RPM)	
정격 전류 Rated current	750	(mA)	
무부하 회전수 No load speed	6,000	(RPM)	
무부하 전류 No load current	130	(mA)	
정격 출력 Rated output	12.7	(W)	



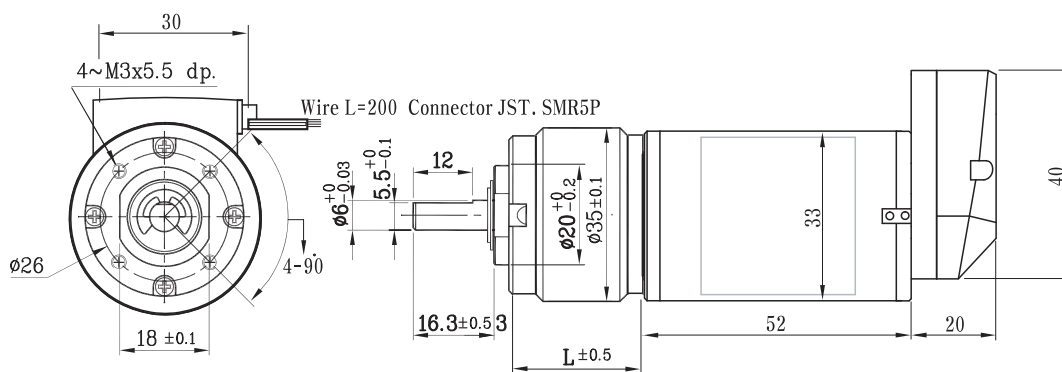
IG-32PGM 07/09 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10℃ ~ +60℃



SPECIFICATION

■ Dimension



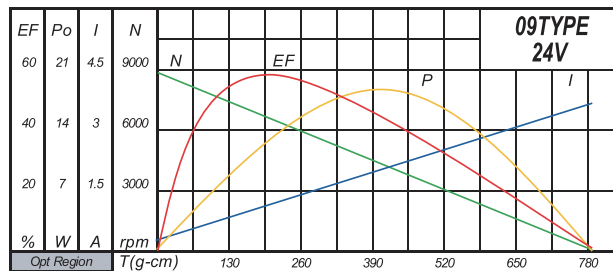
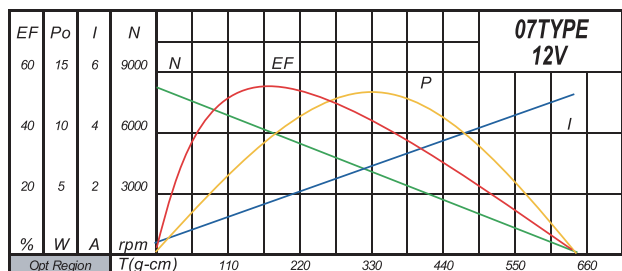
- Geared Motor

감속기 길이 (mm) Gear Head L		22,1	28,5				34,9				41,3											
중량(g)		423	457				491				525											
감속비 Reduction ratio		1/5	1/14	1/19	1/27	1/51	1/71	1/100	1/139	1/189	1/264	1/516	1/721									
Type 07 12v	정격토크(kgf-cm) Rated torque	0,476	1,16	1,58	2,24	3,6	5	7,1	9,9	11,2	12	12	12									
	정격 회전수(RPM) Rated speed	1320	471	347	244	129	93	66	47,5	35	25	12,8	9,15									
	무부하 회전수(RPM) No Load speed	1620	578	426	300	158	114	81	58	42	30	15,6	11,2									
Type 09 24v	정격토크(kgf-cm) Rated torque	0,5	1,3	1,75	2,5	4	5,6	7,9	11	12	12	12	12									
	정격 회전수(RPM) Rated speed	1489	532	392	276	146	105	74,5	53,5	39	28	14,4	10,3									
	무부하 회전수(RPM) No Load speed	1790	639	471	331	175	126	89	64	47	34	17,3	12,4									

■ Motor

07Type Motor (DC 12v)		
정격 토크Rated torque	119	(gf·cm)
정격 회전수Rated speed	6,601	(RPM)
정격 전류Rated current	1,209	(mA)
무부하 회전수No load speed	8,100	(RPM)
무부하 전류No load current	260	(mA)
정격 출력Rated output	8.07	(W)

09Type Motor (DC 24v)		
정격 토크Rated torque	132	(gf-cm)
정격 회전수Rated speed	7,445	(RPM)
정격 전류Rated current	712	(mA)
무부하 회전수No load speed	8,950	(RPM)
무부하 전류No load current	140	(mA)
정격 출력Rated output	10.09	(W)



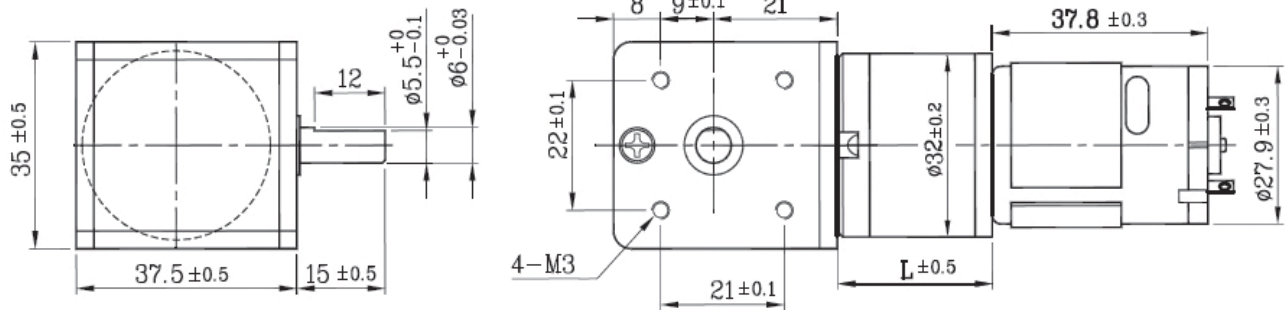
IG-32RGM 01/02 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension



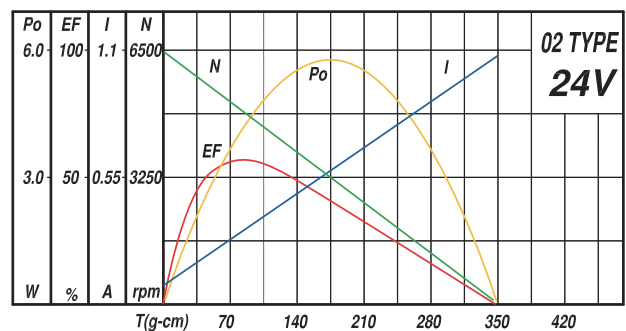
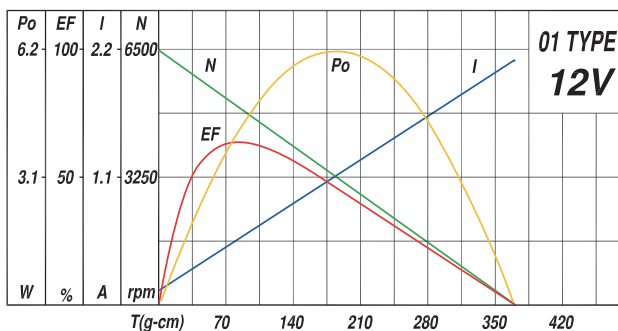
Geared Motor

감속기 길이 (mm) Gear Head L		20.6	27				33.4				39.8				
중량(g)		273	293				318				344				
감속비 Reduction ratio		1/5	1/14	1/19	1/27	1/35	1/51	1/71	1/100	1/139	1/189	1/264	1/516	1/721	1/939
01 TYPE 12V	Rated Torque (Kgf.cm)	0.3	0.75	1	1.4	1.9	2.3	3.3	4.6	6.5	7.3	10	12	12	12
	Rated Speed (RPM)	995	373	270	195	151	104	74	53	38	28	20	11.2	8.3	5.6
	No Load Speed (RPM)	1300	464	342	240	185	127	91	65	46	34	24	12.5	9	6.9
02 TYPE 24V	Rated Torque (Kgf.cm)	0.3	0.75	1	1.4	1.8	2.2	3.1	4.4	6.1	6.9	9.7	12	12	12
	Rated Speed (RPM)	990	370	265	191	150	103	74	53	38	28	20	11.2	8.3	5.5
	No Load Speed (RPM)	1300	464	342	240	185	127	91	65	46	34	24	12.5	9	6.9

Motor

01Type Motor (DC 12v)		
정격 토크 Rated torque	78	(gf-cm)
정격 회전수 Rated speed	5,290	(RPM)
정격 전류 Rated current	530	(mA)
무부하 회전수 No load speed	6,500	(RPM)
무부하 전류 No load current	150	(mA)
정격 출력 Rated output	4.22	(W)

02Type Motor (DC 24v)		
정격 토크 Rated torque	74	(gf-cm)
정격 회전수 Rated speed	5,250	(RPM)
정격 전류 Rated current	250	(mA)
무부하 회전수 No load speed	6,500	(RPM)
무부하 전류 No load current	85	(mA)
정격 출력 Rated output	3.97	(W)



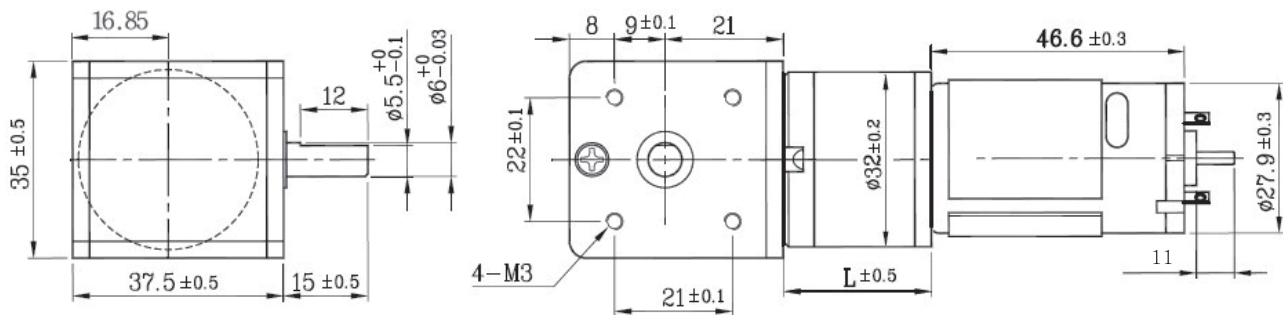
IG-32RGM 03/04 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension



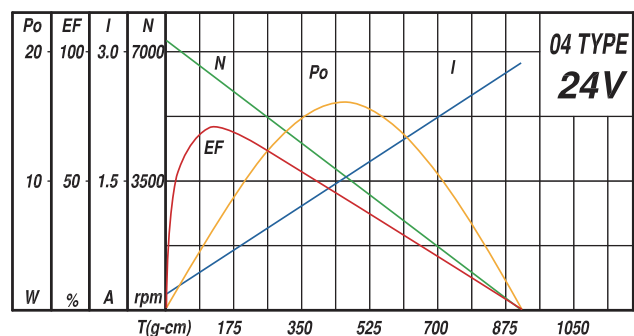
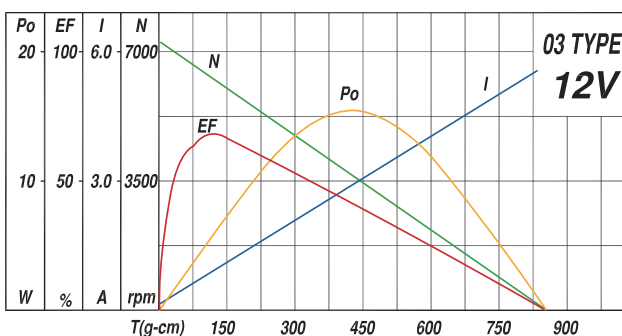
Geared Motor

감속기 길이 (mm) Gear Head L		20.6					27					33.4					39.8				
중량(g)		310					330					355					381				
감속비 Reduction ratio		1/5	1/14	1/19	1/27	1/35	1/51	1/71	1/100	1/139	1/189	1/264	1/516	1/721	1/939						
03 TYPE 12V	Rated Torque (Kgf.cm)	0.45	1.1	1.5	2.1	2.6	3.4	4.7	6.6	9.1	10	12	12	12	12						
	Rated Speed (RPM)	1140	430	310	221	170	117	83	60	44	32	24	12.9	9.5	6.3						
	No Load Speed (RPM)	1460	521	384	270	208	143	102	73	52	38	27	14	10	7.7						
04 TYPE 24V	Rated Torque (Kgf.cm)	0.54	1.2	1.7	2.4	3.1	4	5.5	7.8	10	12	12	12	12	12						
	Rated Speed (RPM)	1170	445	320	229	176	121	87	62	45	34	25	13	9.6	6.5						
	No Load Speed (RPM)	1460	521	384	270	208	143	102	73	52	38	27	14	10	7.7						

Motor

03Type Motor (DC 12v)		
정격 토크 Rated torque	110	(gf-cm)
정격 회전수 Rated speed	5,950	(RPM)
정격 전류 Rated current	900	(mA)
무부하 회전수 No load speed	7,300	(RPM)
무부하 전류 No load current	150	(mA)
정격 출력 Rated output	7.0	(W)

04Type Motor (DC 24v)		
정격 토크 Rated torque	130	(gf-cm)
정격 회전수 Rated speed	6,160	(RPM)
정격 전류 Rated current	500	(mA)
무부하 회전수 No load speed	7,300	(RPM)
무부하 전류 No load current	80	(mA)
정격 출력 Rated output	8.5	(W)



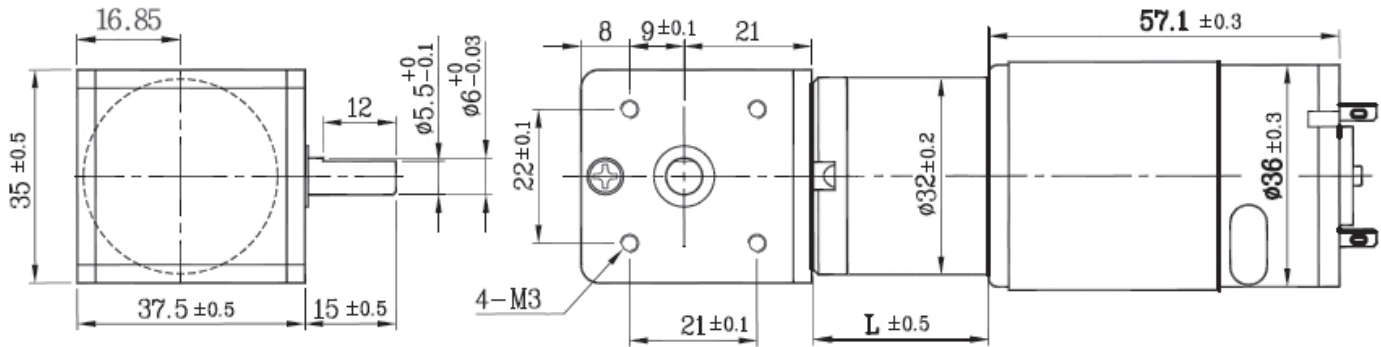
IG-32RGM 05/06 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension



Geared Motor

감속기 길이 (mm) Gear Head L		22.1	28.5				34.9				41.3			
중량(g)		328	362				396				430			
감속비 Reduction ratio		1/5	1/14	1/19	1/27	1/51	1/71	1/100	1/139	1/189	1/264	1/516	1/721	
05 TYPE 12V	Rated Torque (Kgf.cm)	1	2.4	3.3	4.7	7.6	8	10	10	12	12	12	12	
	Rated Speed (RPM)	960	359	257	183	97	71.5	52	39	29	21	11	8	
	No Load Speed (RPM)	1200	428	315	222	117	84	60	43	31	22	11.6	8.3	
06 TYPE 24V	Rated Torque (Kgf.cm)	1	2.3	3.2	4.5	7.3	8	10	10	12	12	12	12	
	Rated Speed (RPM)	990	375	268	192	101	74.5	54	40	29.5	22	11.5	8	
	No Load Speed (RPM)	1200	428	315	222	117	84	60	43	31	22	11.6	8.3	

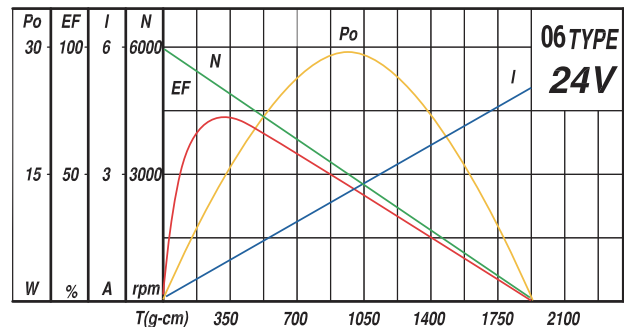
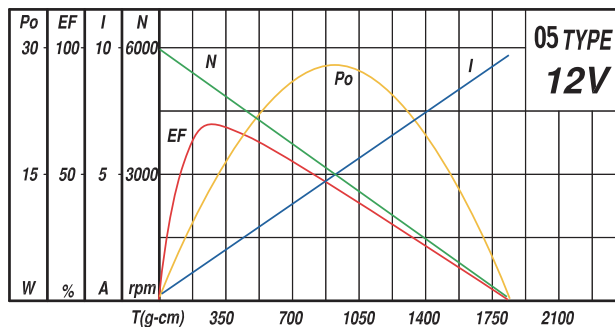
Motor

05Type Motor (DC 12v)

정격 토크 Rated torque	250	(gf-cm)
정격 회전수 Rated speed	4,930	(RPM)
정격 전류 Rated current	1,600	(mA)
무부하 회전수 No load speed	6,000	(RPM)
무부하 전류 No load current	250	(mA)
정격 출력 Rated output	12.8	(W)

06Type Motor (DC 24v)

정격 토크 Rated torque	240	(gf-cm)
정격 회전수 Rated speed	5,150	(RPM)
정격 전류 Rated current	750	(mA)
무부하 회전수 No load speed	6,000	(RPM)
무부하 전류 No load current	130	(mA)
정격 출력 Rated output	12.7	(W)



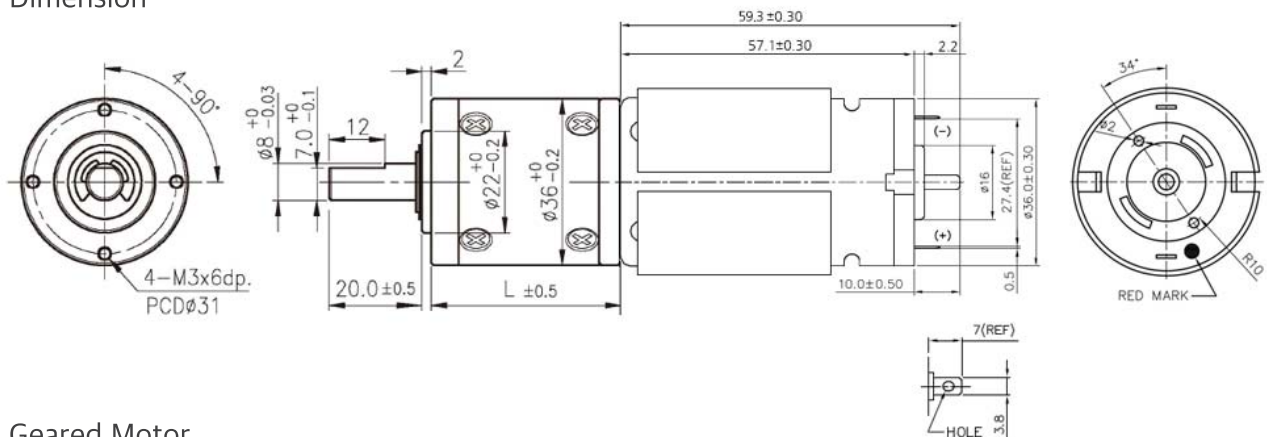
IG-36PGM 05/06 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension

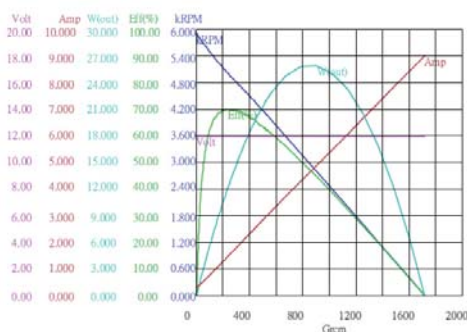


Geared Motor

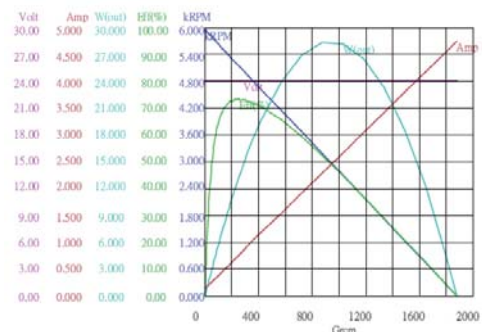
감속기 길이 (mm) Gear Head L		33.1	41.8				50.5				59.2		
중량(g)		298	332				366				400		
감속비 Reduction ratio		1/5	1/14	1/19	1/27	1/51	1/71	1/100	1/139	1/189	1/264	1/516	1/721
05 TYPE 12V	Rated Torque (Kgf.cm)	0.96	2.3	3.2	4.5	7.3	10.2	14.4	20	22.6	25	30	30
	Rated Speed (RPM)	1070	382	281	198	104	75	53	38	28	20	10.3	7.4
	No Load Speed (RPM)	1200	428	315	222	117	84	60	43	31	22	11.6	8.3
06 TYPE 24V	Rated Torque (Kgf.cm)	1	2.5	3.3	4.7	7.6	10.6	15	20	23.6	25	30	30
	Rated Speed (RPM)	1020	364	268	188	100	71	51	36.6	26.9	19.3	9.8	7
	No Load Speed (RPM)	1200	428	315	222	117	84	60	43	31.7	22.7	11.6	8.3

Motor

05Type Motor (DC 12v)		
정격 토크 Rated torque	240	(gf-cm)
정격 회전수 Rated speed	5,100	(RPM)
정격 전류 Rated current	2	(A)
무부하 회전수 No load speed	6,000	(RPM)
무부하 전류 No load current	400	(mA)
정격 출력 Rated output	12.5	(W)



06Type Motor (DC 24v)		
정격 토크 Rated torque	250	(gf-cm)
정격 회전수 Rated speed	5,150	(RPM)
정격 전류 Rated current	1.1	(A)
무부하 회전수 No load speed	6,000	(RPM)
무부하 전류 No load current	250	(mA)
정격 출력 Rated output	12.8	(W)



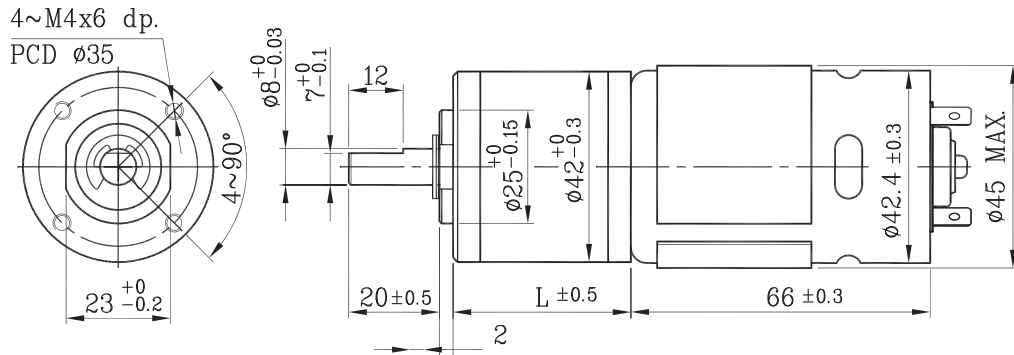
IG-42GM 01/02 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension



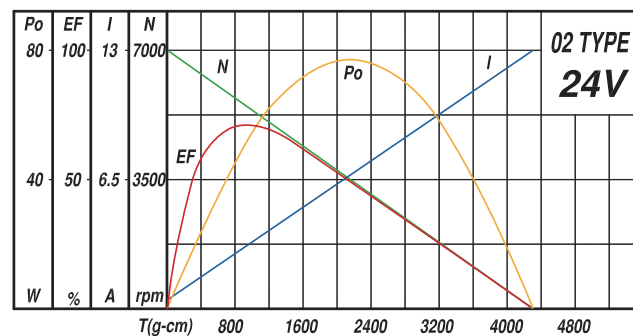
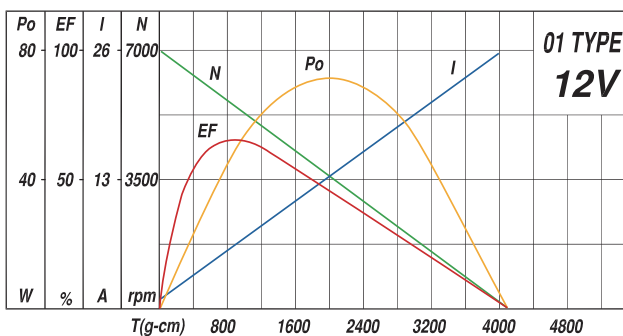
Geared Motor

감속기 길이 (mm) Gear Head L		32,5		39,2		45,9					52,6					59,3					
중량(g)		499		551		591					641					686					
감속비 Reduction ratio		1/4	1/14	1/17	1/24	1/49	1/61	1/84	1/104	1/144	1/212	1/294	1/504	1/624	1/720	1/864	1/1062	1/1470	1/2500	1/3000	1/3600
Type 12v	정격토크(kg·cm) Rated torque	2,2	6,5	8,1	10	18	18	18	20	20	25	25	30	30	30	30	30	30	30	30	30
	정격 회전수(RPM) Rated speed	1400	405	325	248	120	98	76	63	45	31	24	13,5	10,9	9,5	8,0	6,5	4,6	2,7	2,3	1,9
	무부하 회전수(RPM) No Load speed	1750	500	411	291	142	114	83	67	48	33	24	13,8	11,2	9,7	8,1	6,5	4,7	2,8	2,3	1,9
Type 24v	정격토크(kg·cm) Rated torque	1,8	5,4	6,6	9,5	16	18	18	20	20	25	25	30	30	30	30	30	30	30	30	30
	정격 회전수(RPM) Rated speed	1445	420	340	240	122	102	77,5	63	47	31	23,8	13,5	10,9	9,5	8,0	6,5	4,6	2,7	2,3	1,9
	무부하 회전수(RPM) No Load speed	1750	500	411	291	142	114	83	67	48	33	24	13,8	11,2	9,7	8,1	6,5	4,7	2,8	2,3	1,9

Motor

01Type Motor (DC 12v)		
정격 토크 Rated torque	700	(gf-cm)
정격 회전수 Rated speed	5,700	(RPM)
정격 전류 Rated current	5,500	(mA)
무부하 회전수 No load speed	7,000	(RPM)
무부하 전류 No load current	900	(mA)
정격 출력 Rated output	41.3	(W)

02Type Motor (DC 24v)		
정격 토크 Rated torque	570	(gf-cm)
정격 회전수 Rated speed	5,900	(RPM)
정격 전류 Rated current	2,100	(mA)
무부하 회전수 No load speed	7,000	(RPM)
무부하 전류 No load current	500	(mA)
정격 출력 Rated output	34.7	(W)



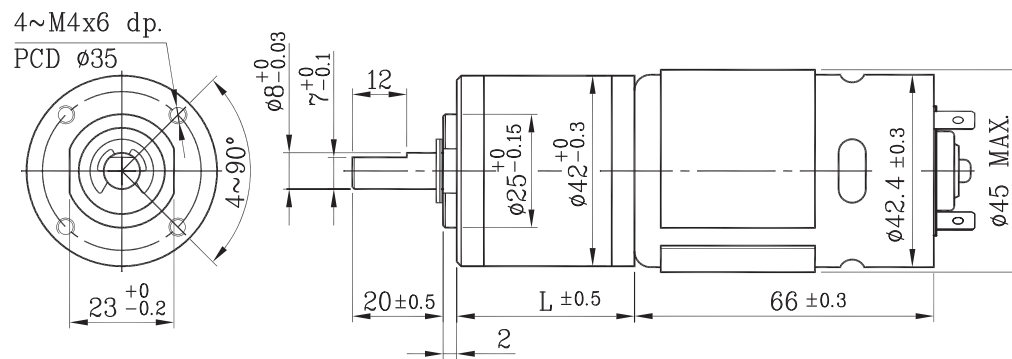
IG-42GM 03 TYPE

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension

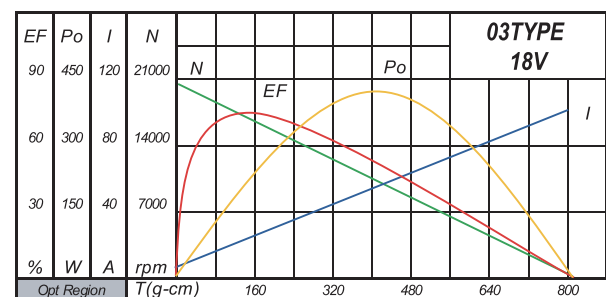


Geared Motor

감속기 길이 (mm) Gear Head L		32,5		39,2		45,9					52,6							59,3					
중량(g)		499		551		591					641							686					
감속비 Reduction ratio		1/4		1/14	1/17	1/24	1/49	1/61	1/84	1/104	1/144	1/212	1/263	1/294	1/504	1/624	1/720	1/864	1/1062	1/1470	1/2500	1/3000	1/3600
03 Type 18v	정격토크(kgf-cm) Rated torque	4	10	10	10	18	18	18	20	20	25	25	25	30	30	30	30	30	30	30	30	30	
	정격 회전수(RPM) Rated speed	4600	1314	1082	767	375	301	219	177	128	86,7	67	62,5	36,5	29,5	25,5	21,2	17,3	12,5	7,36	6	5,1	
	무부하 회전수(RPM) No Load speed	5250	1500	1235	875	428	344	250	201	145	99	79	71	41	33	29	24	19	14	8,4	7	5,8	

Motor

03Type Motor (DC 18v)		
정격 토크 Rated torque	1032	(gf-cm)
정격 회전수 Rated speed	18,400	(RPM)
정격 전류 Rated current	14,315	(A)
무부하 회전수 No load speed	21,000	(RPM)
무부하 전류 No load current	2,01	(A)
정격 출력 Rated output	199	(W)



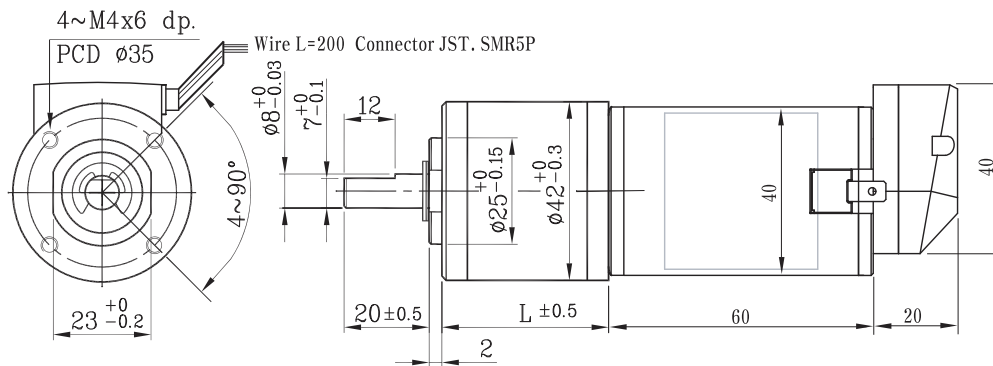
IG-42GM 04/05 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension



Geared Motor

감속기 길이 (mm) Gear Head L		32,5		39,2		45,9					52,6					59,3						
중량(g)		569		621		661					711					756						
감속비 Reduction ratio		1/4	1/14	1/17	1/24	1/49	1/61	1/84	1/104	1/144	1/212	1/294	1/504	1/624	1/720	1/864	1/1062	1/1470	1/2500	1/3000	1/3600	
Type	04	정격토크(kgf-cm) Rated torque	0,85	2,6	3,2	4,5	7,8	9,8	13	16,7	20	25	25	30	30	30	30	30	30	30	30	
	12v	정격 회전수(RPM) Rated speed	1742	498	410	290	142	114	83	67	48	33	23,7	13,8	11	9,7	8	6,5	4,7	2,8	2,3	1,9
		무부하 회전수(RPM) No Load speed	2025	578	476	335	165	132	96	77	56	38	27	16	12	11,2	9,3	7,6	5,5	3,2	2,7	2,2
Type	05	정격토크(kgf-cm) Rated torque	1	3	3,7	5,2	9,2	11,5	15,8	19,5	20	25	25	30	30	30	30	30	30	30	30	
	24v	정격 회전수(RPM) Rated speed	1861	532	438	310	152	122	88,6	71,5	51,7	35	25	14,8	11,9	10,3	8,6	7	5	2,97	2,48	2,06
		무부하 회전수(RPM) No Load speed	2125	607	500	354	173	139	101	81	59	40	29	16,8	13,6	11,8	9,8	8	5,7	3,4	2,8	2,3

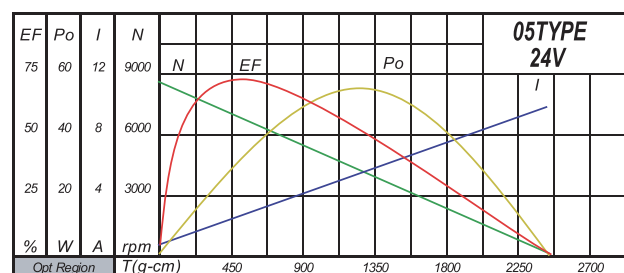
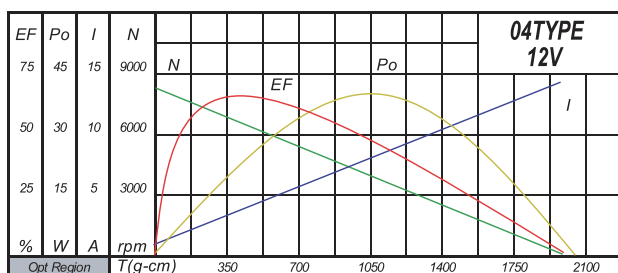
Motor

04Type Motor (DC 12v)

정격 토크 Rated torque	268	(gf-cm)
정격 회전수 Rated speed	6,969	(RPM)
정격 전류 Rated current	2,334	(mA)
무부하 회전수 No load speed	8,100	(RPM)
무부하 전류 No load current	360	(mA)
정격 출력 Rated output	19,18	(W)

05Type Motor (DC 24v)

정격 토크 Rated torque	314	(gf-cm)
정격 회전수 Rated speed	7,445	(RPM)
정격 전류 Rated current	1,364	(mA)
무부하 회전수 No load speed	8,500	(RPM)
무부하 전류 No load current	190	(mA)
정격 출력 Rated output	24,01	(W)



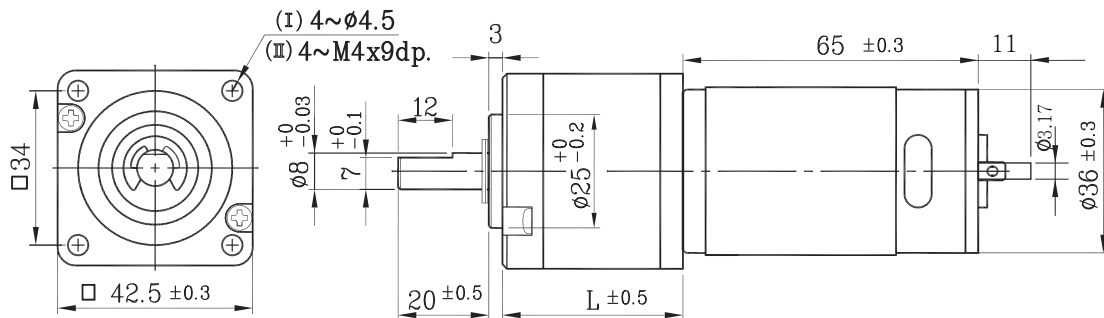
IG-43GM 01/02 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension

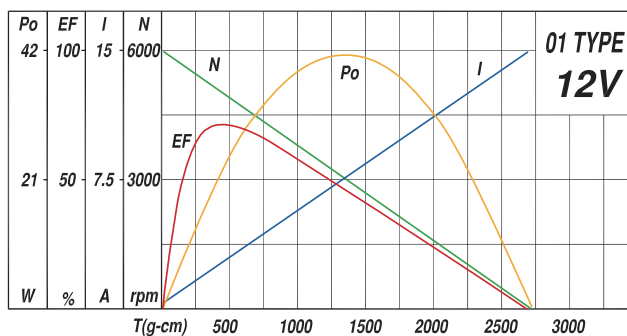


Geared Motor

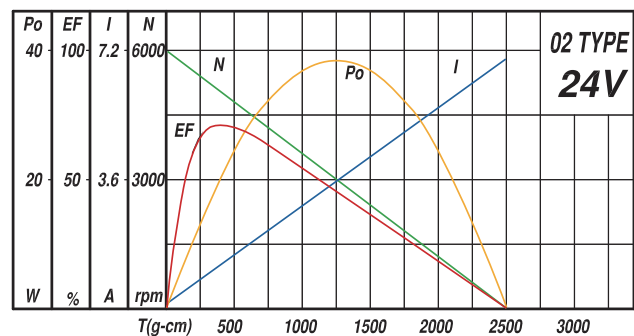
감속기 길이 (mm) Gear Head L	26,15	32,95	39,75						46,45											
중량(g)	456	516	571						621											
감속비 Reduction ratio	1/4	1/14	1/17	1/24	1/49	1/61	1/84	1/104	1/144	1/212	1/294	1/504	1/624	1/720	1/864					
01 Type 12v	정격토크(kgf-cm) Rated torque	0,5	3,0	3,6	5,2	9,2	11	15	19	20	25	25	30	30	30	30				
	정격 회전수(RPM) Rated speed	1250	363	293	212	103	83,5	60,5	49	38	25,4	18,9	11,2	8,8	8,0	6,5				
	무부하 회전수(RPM) No Load speed	1500	428	352	250	122	98	71	57	41	28	20	11,9	9,6	8,3	6,9				
02 Type 24v	정격토크(kgf-cm) Rated torque	0,5	2,6	3,1	4,5	8,0	10	14	17	20	25	25	30	30	30	30				
	정격 회전수(RPM) Rated speed	1290	375	302	218	107	86,5	62,5	50,5	39	26,2	18,8	11,2	8,8	8,0	6,5				
	무부하 회전수(RPM) No Load speed	1500	428	352	250	122	98	71	57	41	28	20	11,9	9,6	8,3	6,9				

Motor

01Type Motor (DC 12v)			
정격 토크 Rated torque	320	(gf-cm)	
정격 회전수 Rated speed	5,090	(RPM)	
정격 전류 Rated current	2,100	(mA)	
무부하 회전수 No load speed	6,000	(RPM)	
무부하 전류 No load current	350	(mA)	
정격 출력 Rated output	17,09	(W)	



02Type Motor (DC 24v)			
정격 토크 Rated torque	280	(gf-cm)	
정격 회전수 Rated speed	5,250	(RPM)	
정격 전류 Rated current	900	(mA)	
무부하 회전수 No load speed	6,000	(RPM)	
무부하 전류 No load current	170	(mA)	
정격 출력 Rated output	15,56	(W)	



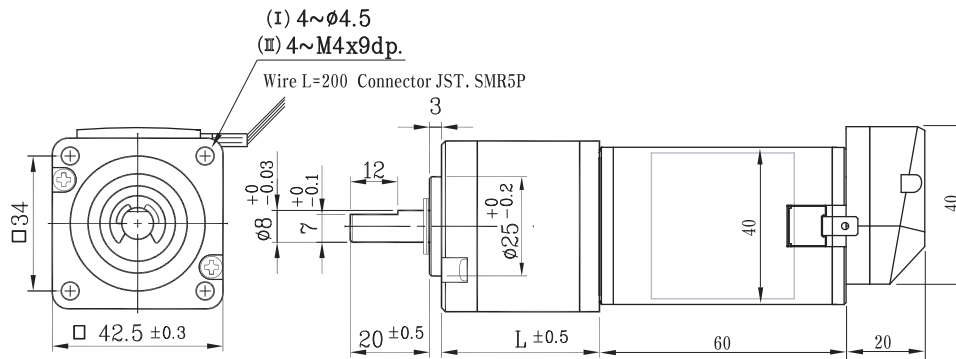
IG-43GM 03/04 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension



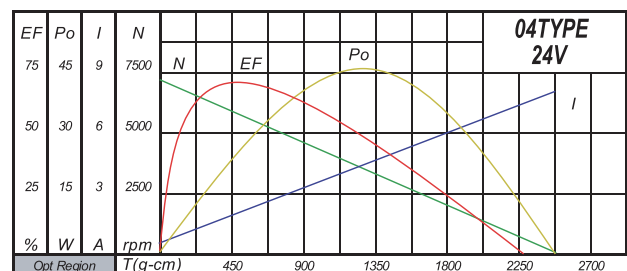
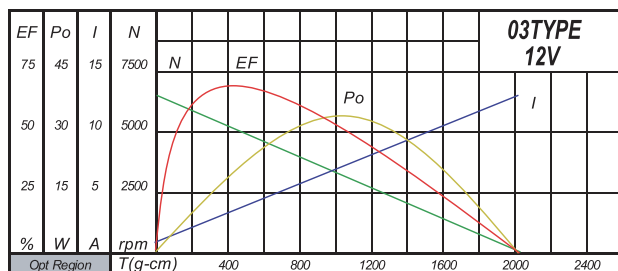
Geared Motor

감속기 길이 (mm) Gear Head L	26,15	32,95	39,75					46,45									
중량(g)	526	586	641					691									
감속비 Reduction ratio	1/4	1/14	1/17	1/24	1/49	1/61	1/84	1/104	1/144	1/212	1/294	1/504	1/624	1/720	1/864		
03 Type 12v	정격토크(kgf-cm) Rated torque	0.9	2.77	3.4	4.75	8.3	10.3	14.2	17.6	20	25	25	30	30	30	30	
	정격 회전수(RPM) Rated speed	1403	401	330	234	114.5	92	66.8	54	38.9	26.5	19	11.1	8.99	7.8	6.5	
	무부하 회전수(RPM) No Load speed	1625	464	382	270	132	106	77	62	45	30	22	12.8	10.4	9	7.5	
04 Type 24v	정격토크(kgf-cm) Rated torque	0.96	2.96	3.6	5	8.9	11	15.2	18.9	20	25	25	30	30	30	30	
	정격 회전수(RPM) Rated speed	1558	445	366.6	259.7	127	102	74	60	43.2	29.4	21.2	12.3	9.98	8.6	7.2	
	무부하 회전수(RPM) No Load speed	1775	507	417	295	144	116	84	68	47	33	24	14	11.3	9.8	8.2	

Motor

03Type Motor (DC 12v)		
정격 토크 Rated torque	283	(gf-cm)
정격 회전수 Rated speed	5,614	(RPM)
정격 전류 Rated current	2,026	(mA)
무부하 회전수 No load speed	6,500	(RPM)
무부하 전류 No load current	300	(mA)
정격 출력 Rated output	16,32	(W)

04Type Motor (DC 24v)		
정격 토크 Rated torque	303	(gf-cm)
정격 회전수 Rated speed	6,233	(RPM)
정격 전류 Rated current	1,119	(mA)
무부하 회전수 No load speed	7,100	(RPM)
무부하 전류 No load current	150	(mA)
정격 출력 Rated output	19,39	(W)



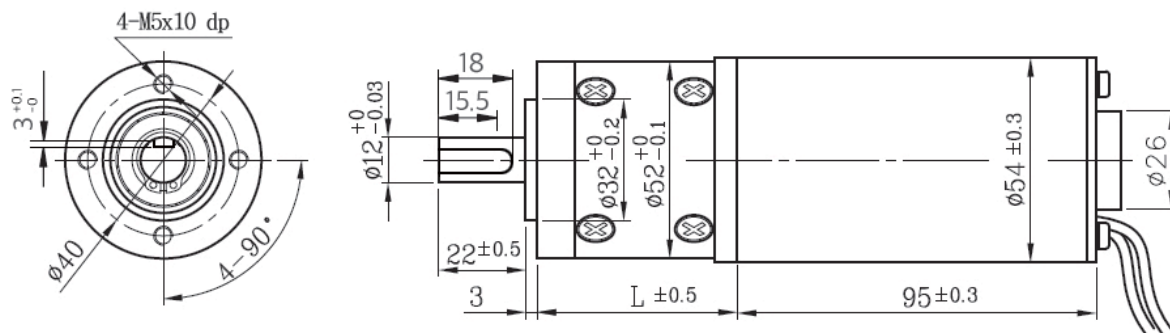
IG-52GM 03/04 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension



Geared Motor

감속기 길이 (mm) Gear Head L		53,0		68,5				84,0							99,5									
중량(g)		1395		1580				1770							1940									
감속비 Reduction ratio		1/3	1/4	1/12	1/15	1/19	1/21	1/26	1/43	1/53	1/66	1/81	1/100	1/113	1/126	1/150	1/230	1/285	1/353	1/488	1/546	1/676	1/756	1/936
03 Type 12v	정격토크(kgf-cm) Rated torque	2,5	3,1	7,7	9,5	11,8	13,2	16	16	23	28	35	54	60	68	68	100	100	100	100	100	100	100	100
	정격 회전수(RPM) Rated speed	1030	835	295	238	192	190	172	84	68	55	44	36	32	28,7	24	15,5	12,8	10,4	7,6	6,7	5,6	4,8	4,0
	무부하 회전수(RPM) No Load speed	1333	1000	333	266	210	190	153	93	75	60	49	40	35	31	26	17	14	11	8,1	7,3	5,9	5,2	4,2
04 Type 24v	정격토크(kgf-cm) Rated torque	3,6	4,5	11	13,5	17	19,1	23	33	41	51	62	78	88	98	98	100	100	100	100	100	100	100	100
	정격 회전수(RPM) Rated speed	1000	815	285	230	185	169	136	82	67	54	44	35	31	28,2	23,5	15,6	12,9	10,5	7,7	6,8	5,7	4,7	3,8
	무부하 회전수(RPM) No Load speed	1333	1000	333	266	210	190	153	93	75	60	49	40	35	31	26	17	14	11	8,1	7,3	5,9	5,2	4,2

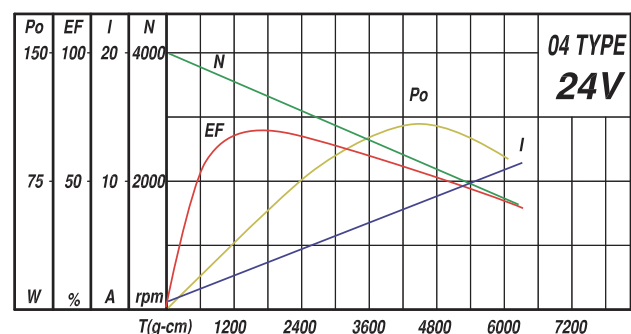
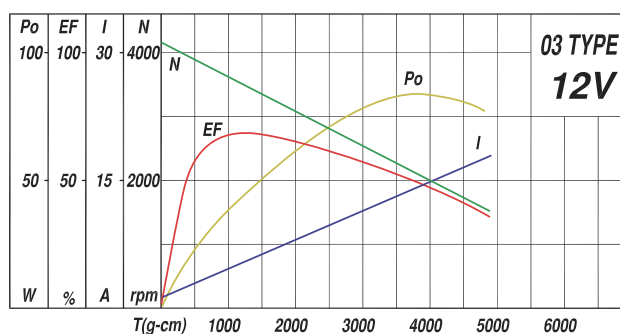
Motor

03Type Motor (DC 12v)

정격 토크 Rated torque	900	(gf-cm)
정격 회전수 Rated speed	3,620	(RPM)
정격 전류 Rated current	4,100	(mA)
무부하 회전수 No load speed	4,000	(RPM)
무부하 전류 No load current	1,200	(mA)
정격 출력 Rated output	33,5	(W)

04Type Motor (DC 24v)

정격 토크 Rated torque	1,300	(gf-cm)
정격 회전수 Rated speed	3,550	(RPM)
정격 전류 Rated current	2,850	(mA)
무부하 회전수 No load speed	4,000	(RPM)
무부하 전류 No load current	700	(mA)
정격 출력 Rated output	48,6	(W)



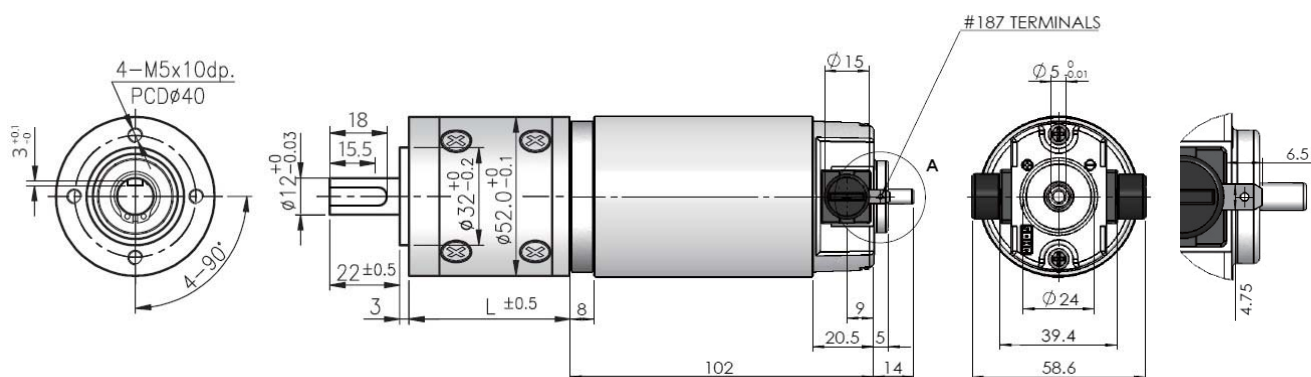
IG-52GM 05/06 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension



Geared Motor

감속기 길이 (mm) Gear Head L		53		68.5			84						99.5						
중량(g)		1355		1540			1730						1900						
감속비 Reduction ratio		1/3	1/4	1/12	1/15	1/19	1/43	1/53	1/66	1/81	1/100	1/113	1/150	1/230	1/285	1/353	1/488	1/546	1/676
05 TYPE 12V	Rated Torque (Kgf.cm)	1.8	2.4	6.31	7.8	11.4	19.3	23.8	29.7	36.4	45	50.8	56.2	86.2	100	100	100	100	100
	Rated Speed(RPM)	1647	1235	411	329	260	114	93	74	61	49	43	33	21	17	14	10.1	9	7.3
	No Load Speed (RPM)	2026	1520	205	405	320	141	114	92	75	60	53	40	26	21	17	12.4	11.1	8.9
06 TYPE 24V	Rated Torque (Kgf.cm)	2.6	3.5	9.2	11.5	14.5	28.3	34.8	43.4	53.3	65.8	74.3	82.2	100	100	100	100	100	100
	Rated Speed(RPM)	1723	1292	430	344	272	120	97	78	63	51	45	34	22	18	14	10.5	9.4	7.6
	No Load Speed (RPM)	1933	1450	483	386	305	134	109	87	71	58	51	38	25	20	16	11.8	10.6	8.8

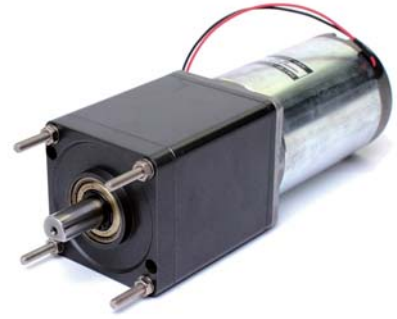
Motor

BL3640-12V MOTOR(DC 12V)		
정격 토크 Rated torque	700	(gf-cm)
정격 회전수 Rated speed	4,943	(RPM)
정격 전류 Rated current	5,146	(mA)
무부하 회전수 No load speed	6,080	(RPM)
무부하 전류 No load current	1200	(mA)
정격 출력 Rated output	38	(W)

BL3640-24V MOTOR(DC 24V)		
정격 토크 Rated torque	1,100	(gf-cm)
정격 회전수 Rated speed	5,170	(RPM)
정격 전류 Rated current	3,527	(mA)
무부하 회전수 No load speed	5,800	(RPM)
무부하 전류 No load current	460	(mA)
정격 출력 Rated output	58	(W)

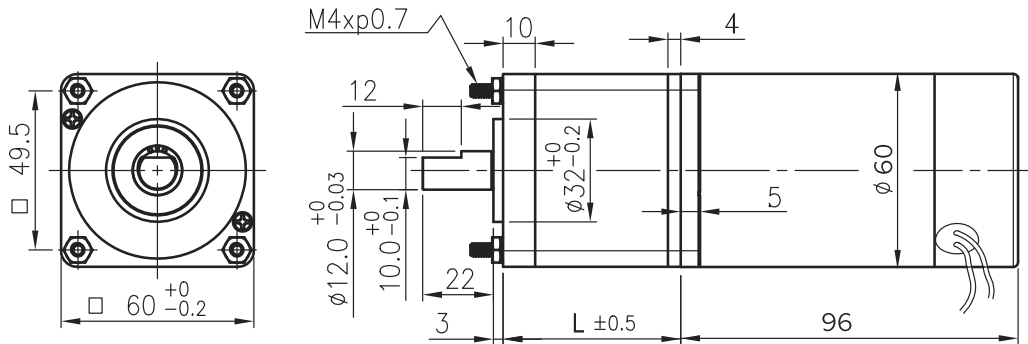
IG-60GM 03 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10°C ~ +60°C



SPECIFICATION

Dimension

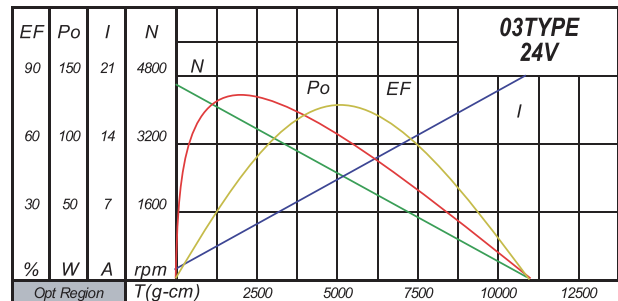


Geared Motor

감속기 길이 (mm) Gear Head L		43.3		58.8						74.3						89.8								
중량(g)		1560		1780						2030						2260								
감속비 Reduction ratio		1/3	1/4	1/12	1/15	1/19	1/21	1/26	1/43	1/53	1/66	1/81	1/100	1/113	1/126	1/150	1/230	1/285	1/353	1/466	1/546	1/676	1/756	1/936
03 TYPE 24V	Rated Torque (Kgf.cm)	2.4	3.2	8.4	10.5	13.3	14.7	18	25.8	32	39.6	48.6	60	68	75	75	100	100	100	100	100	100	100	100
	Rated Speed (RPM)	1392	1044	348	278	220	199	160	97	79	63.2	51.5	41.8	37	33	28	18.1	14.6	11.8	8.5	7.6	6.2	5.5	4.5
	No Load Speed (RPM)	1533	1150	383	306	242	219	176	106	86	69	56	46	40	36	30	20	16.1	13	9.4	8.4	6.8	6	4.9

Motor

03Type Motor (DC 24v)		
정격 토크 Rated torque	1,000	(gf-cm)
정격 회전수 Rated speed	4,176	(RPM)
정격 전류 Rated current	3,550	(mA)
무부하 회전수 No load speed	4,600	(RPM)
무부하 전류 No load current	500	(mA)
정격 출력 Rated output	60	(W)



2

RA/RB MOTOR SERIES

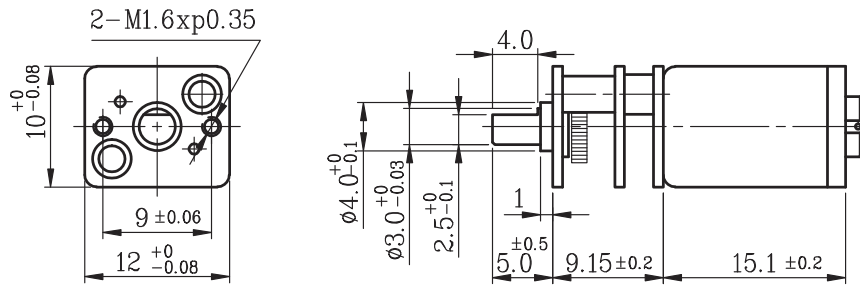
RA-12WGM 01/02 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

■ Dimension

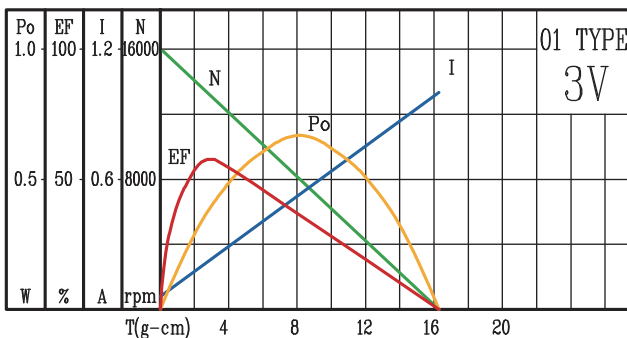


■ Geared Motor

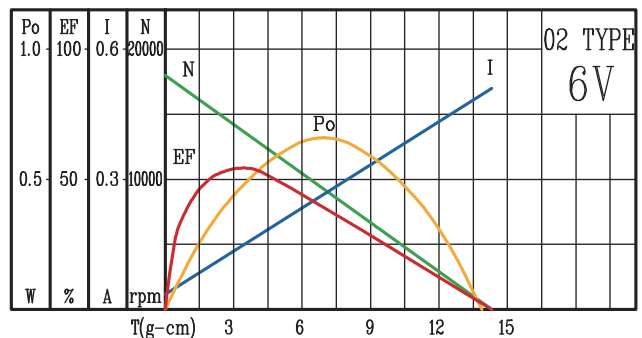
감속기 길이 (mm) Gear Head L		9.15									
중량(g)		9.5									
감속비 Reduction ratio		1/10	1/19	1/29	1/60	1/76	1/102	1/134	1/197	1/235	1/298
01 TYPE 3V	Rated Torque (gf.cm)	15	25	40	75	100	120	155	230	275	350
	Rated Speed (RPM)	1400	720	480	230	180	135	100	70	59	46
	No Load Speed (RPM)	1600	842	551	266	210	157	119	228	68	54
02 TYPE 6V	Rated Torque (gf.cm)	24	40	60	115	150	200	235	345	410	520
	Rated Speed (RPM)	1450	770	510	245	195	145	110	75	63	50
	No Load Speed (RPM)	1800	947	620	300	237	176	134	91	76	60

■ Motor

01TYPE MOTOR(DC 3V)		
정격 토크 Rated torque	2	(gf.cm)
정격 회전수 Rated speed	14,000	(RPM)
정격 전류 Rated current	≤ 250	(mA)
무부하 회전수 No load speed	16,000	(RPM)
무부하 전류 No load current	≤ 80	(mA)
정격 출력 Rated output	0.287	(W)



02TYPE MOTOR(DC 6V)		
정격 토크 Rated torque	3	(gf.cm)
정격 회전수 Rated speed	14,900	(RPM)
정격 전류 Rated current	≤ 170	(mA)
무부하 회전수 No load speed	18,000	(RPM)
무부하 전류 No load current	≤ 50	(mA)
정격 출력 Rated output	0.46	(W)



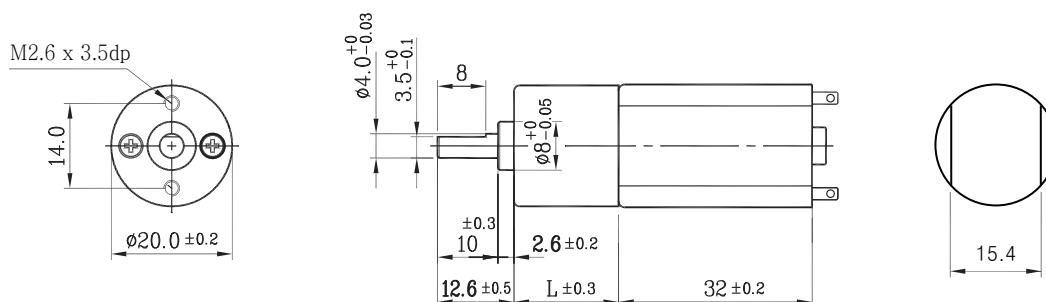
RA-20GM 01/02 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension

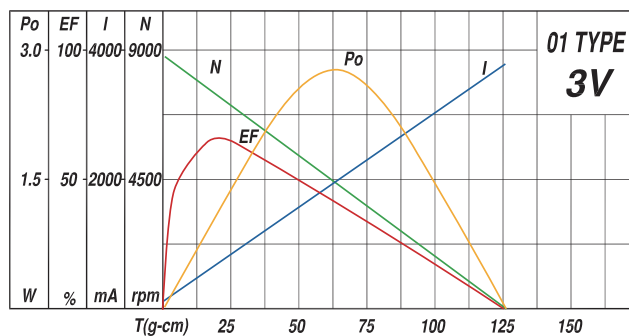


Geared Motor

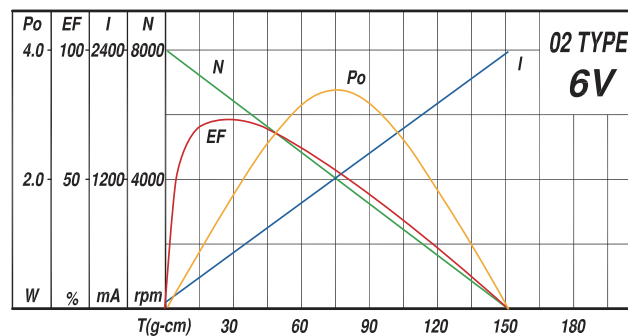
감속기 길이 (mm) Gear Head L		16,5		20,0					21,8				25,3								
중량(g)		50		59,5					61				64								
감속비 Reduction ratio		1/10	1/13	1/18	1/29	1/42	1/52	1/67	1/80	1/99	1/120	1/150	1/179	1/225	1/275	1/350	1/430	1/549	1/689	1/794	1/866
Type 01 3v	정격토크(gf-cm) Rated torque	140	170	220	350	430	530	690	750	930	1130	1400	1500	1800	1800	1800	1800	1800	1800	1800	1800
	정격 회전수(RPM) Rated speed	735	590	410	255	180	146	113	95	77	63	51	43	34	28,6	22	18,2	14,5	11,9	10,2	9,3
	무부하 회전수(RPM) No Load speed	900	692	500	310	214	173	134	112	90	75	60	50	40	32,7	25	20,9	16,3	13	11,3	10,3
Type 02 6v	정격토크(gf-cm) Rated torque	160	200	260	420	510	640	820	880	1100	1350	1500	1800	1800	1800	1800	1800	1800	1800	1800	1800
	정격 회전수(RPM) Rated speed	670	540	375	233	164	133	104	87	70	57	46	39	31,7	26	21	17	13,8	11	9,3	8,5
	무부하 회전수(RPM) No Load speed	800	615	444	275	190	153	119	100	80	66	53	44	35	29	22	18,6	14,5	11,6	10	9,2

Motor

01Type Motor (DC 3v)		
정격 토크 Rated torque	19,5	(gf-cm)
정격 회전수 Rated speed	7,550	(RPM)
정격 전류 Rated current	750	(mA)
무부하 회전수 No load speed	9,000	(RPM)
무부하 전류 No load current	150	(mA)
정격 출력 Rated output	1,52	(W)



02Type Motor (DC 6v)		
정격 토크 Rated torque	22,5	(gf-cm)
정격 회전수 Rated speed	6,900	(RPM)
정격 전류 Rated current	390	(mA)
무부하 회전수 No load speed	8,000	(RPM)
무부하 전류 No load current	65	(mA)
정격 출력 Rated output	1,68	(W)



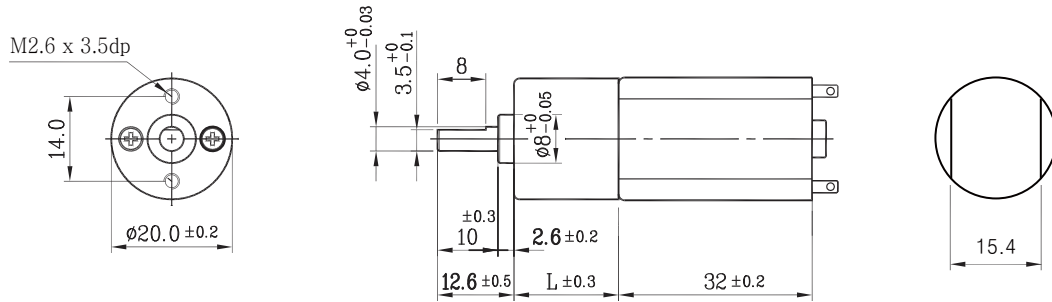
RA-20GM 03/04 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

■ Dimension



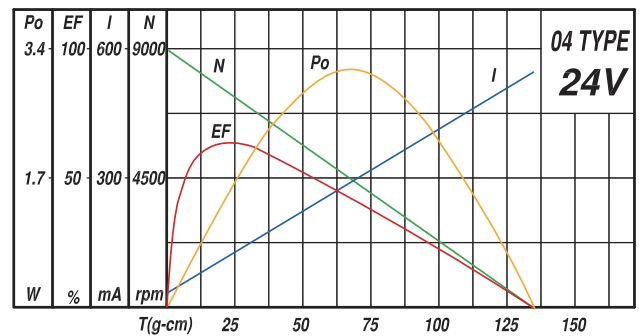
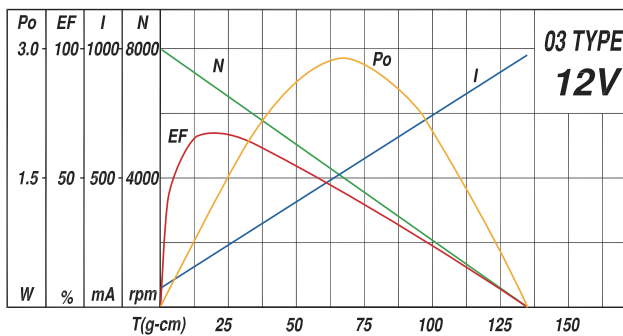
■ Geared Motor

감속기 길이 (mm) Gear Head L		16,5		20,0				21,8				25,3										
중량(g)		50		59,5				61				64										
감속비 Reduction ratio		1/10	1/13	1/18	1/29	1/42	1/52	1/67	1/80	1/99	1/120	1/150	1/179	1/225	1/275	1/350	1/430	1/549	1/689	1/794	1/866	
Type	03	정격토크(gf-cm) Rated torque	160	200	250	410	510	620	810	860	1100	1300	1500	1770	1800	1800	1800	1800	1800	1800	1800	
	12v	정격 회전수(RPM) Rated speed	655	525	364	226	159	129	100	84	67	56	45	37	31	25,5	20,5	16,6	13,1	10,5	9,3	8,6
		무부하 회전수(RPM) No Load speed	800	615	444	275	190	153	119	100	80	66	53	44	35	29	22	18,6	14,5	11,6	10	9,2
Type	04	정격토크(gf-cm) Rated torque	160	200	250	410	510	620	810	860	1100	1300	1500	1770	1800	1800	1800	1800	1800	1800	1800	
	24v	정격 회전수(RPM) Rated speed	720	580	403	250	176	142	110	93	74	62	49,5	41	34	28,5	23	18,5	15	12	10,5	9,2
		무부하 회전수(RPM) No Load speed	900	692	500	310	214	173	134	112	90	75	60	50	40	32,7	25	20,9	16,3	13	11,3	10,3

■ Motor

03Type Motor (DC 12v)		
정격 토크 Rated torque	22	(gf-cm)
정격 회전수 Rated speed	6,700	(RPM)
정격 전류 Rated current	200	(mA)
무부하 회전수 No load speed	8,000	(RPM)
무부하 전류 No load current	50	(mA)
정격 출력 Rated output	1.5	(W)

04Type Motor (DC 24v)		
정격 토크 Rated torque	22	(gf-cm)
정격 회전수 Rated speed	7,400	(RPM)
정격 전류 Rated current	110	(mA)
무부하 회전수 No load speed	9,000	(RPM)
무부하 전류 No load current	30	(mA)
정격 출력 Rated output	1.7	(W)



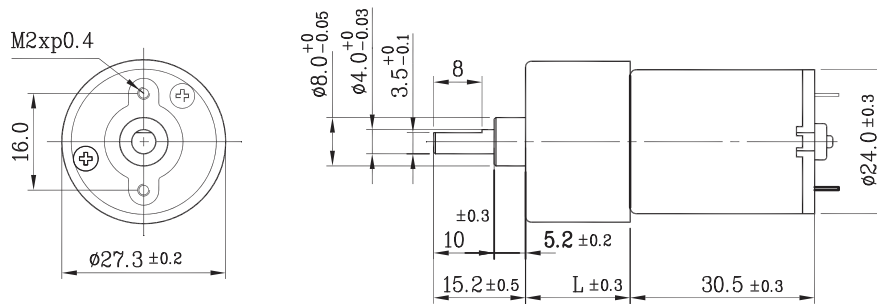
RA-25GM 01TYPE

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10℃ ~ +60℃



SPECIFICATION

Dimension

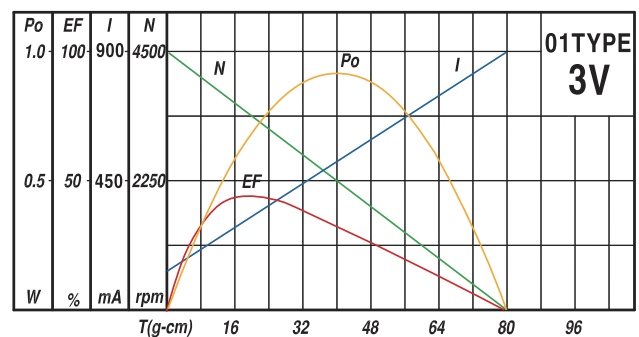


Geared Motor

감속기 길이 (mm) Gear Head L		17,3															19,3				
중량(g)		75	76	77				78								79					
감속비 Reduction ratio		1/10	1/15	1/21	1/30	1/44	1/60	1/77	1/100	1/112	1/150	1/170	1/200	1/250	1/320	1/360	1/500	1/700	1/800	1/900	1/1150
01 Type 6v	정격토크(gf-cm) Rated torque	150	210	300	380	550	750	800	1000	1000	1200	1200	1200	1200	1200	1200	1500	1500	1500	1500	1500
	정격 회전수(RPM) Rated speed	358	237	169	119	81	59	51	40	36	26	22	20	16	12	11	8	5,5	5	4,3	3,6
	무부하 회전수(RPM) No Load speed	450	300	214	150	102	75	58	45	40	30	26	22	18	14	12	9	6,4	5,6	5	3,9

Motor

01Type Motor (DC 6v)		
정격 토크 Rated torque	19	(gf-cm)
정격 회전수 Rated speed	3,580	(RPM)
정격 전류 Rated current	210	(mA)
무부하 회전수 No load speed	4,500	(RPM)
무부하 전류 No load current	70	(mA)
정격 출력 Rated output	0.7	(W)



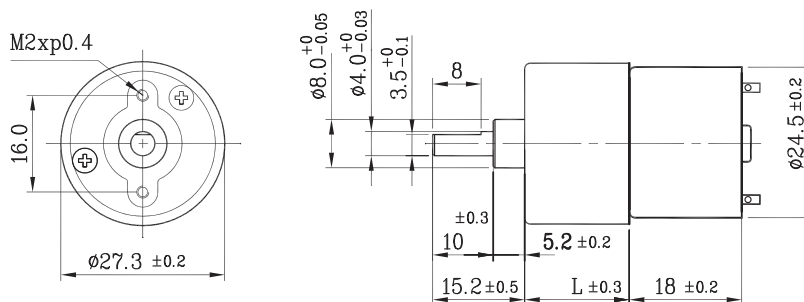
RA-25GM 04/05TYPE

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10℃ ~ +60℃



SPECIFICATION

Dimension



Geared Motor

감속기 길이 (mm) Gear Head L		17.3														19.3					
중량(g)		62	63	64				65								66					
감속비 Reduction ratio		1/10	1/15	1/21	1/30	1/44	1/60	1/77	1/100	1/112	1/150	1/170	1/200	1/250	1/320	1/360	1/500	1/700	1/800	1/900	1/1150
04 TYPE 12V	Rated Torque (gf.cm)	45	60	90	110	160	220	290	370	410	430	480	560	700	900	950	1050	1500	1500	1500	1500
	Rated Speed (RPM)	390	260	180	130	88	65	51	39	35	25	22	19	15	12	10.5	7.5	5.6	5	4.9	4
	No Load Speed (RPM)	520	346	247	173	118	86	67	52	46	34	30	26	20	16	14	10.4	7.4	6.5	5.7	4.5
05 TYPE 24V	Rated Torque (gf.cm)	80	100	150	190	280	390	500	650	720	750	850	1000	1250	1600	1800	2000	2800	3200	3600	4500
	Rated Speed (RPM)	640	426	304	213	145	106	83	64	57	42	37	32	25	20	17	12.8	9	8	7	5.5
	No Load Speed (RPM)	800	533	380	266	181	133	103	80	71	53	47	40	32	25	22	16	11.4	10	8.8	7

Motor

04TYPE MOTOR(DC 12V)		
정격 토크 Rated torque	6	(gf-cm)
정격 회전수 Rated speed	4,000	(RPM)
정격 전류 Rated current	60	(mA)
무부하 회전수 No load speed	5,200	(RPM)
무부하 전류 No load current	30	(mA)
정격 출력 Rated output	0.25	(W)

05TYPE MOTOR(DC 24V)		
정격 토크 Rated torque	10	(gf-cm)
정격 회전수 Rated speed	6,400	(RPM)
정격 전류 Rated current	60	(mA)
무부하 회전수 No load speed	8,000	(RPM)
무부하 전류 No load current	15	(mA)
정격 출력 Rated output	0.66	(W)

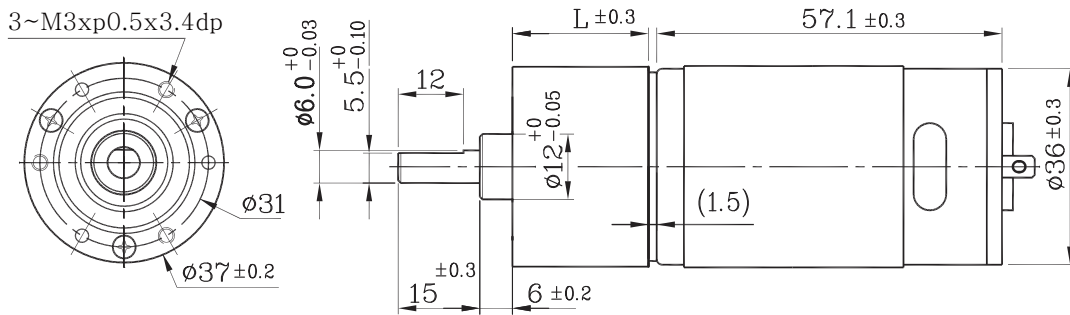
RA-35GM 07/09TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension



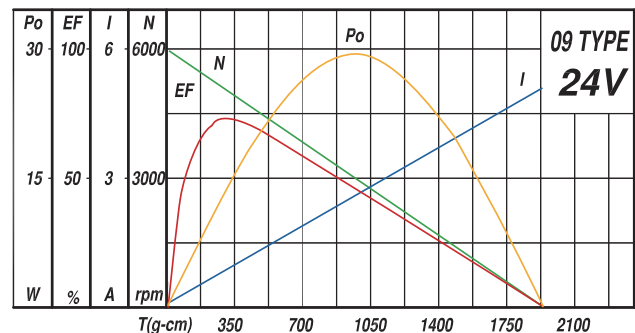
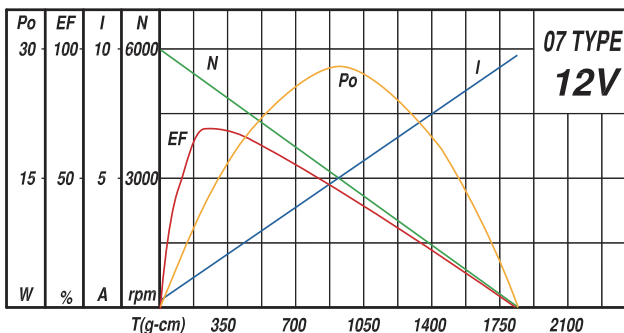
Geared Motor

감속기 길이 (mm) Gear Head L	21,8	24,6	27,1	29,5	32	34,5	37
중량(g)	317	323	329	337	341	348	351
감속비 Reduction ratio	1/6	1/16	1/21	1/31	1/56	1/75	1/938
07 Type	정격토크(kgf-cm) Rated torque	1.0	2.0	2.0	3.0	4.0	5.0
12v	정격 회전수(RPM) Rated speed	795	330	250	172	95	72
	무부하 회전수(RPM) No Load speed	1000	375	285	193	107	80
09 Type	정격토크(kgf-cm) Rated torque	1.0	2.0	2.0	3.0	4.0	5.0
24v	정격 회전수(RPM) Rated speed	805	338	260	175	97	73
	무부하 회전수(RPM) No Load speed	1000	375	285	193	107	80

Motor

07Type Motor (DC 12v)		
정격 토크 Rated torque	250	(gf-cm)
정격 회전수 Rated speed	4,930	(RPM)
정격 전류 Rated current	1,600	(mA)
무부하 회전수 No load speed	6,000	(RPM)
무부하 전류 No load current	250	(mA)
정격 출력 Rated output	12.8	(W)

09Type Motor (DC 24v)		
정격 토크 Rated torque	240	(gf-cm)
정격 회전수 Rated speed	5,150	(RPM)
정격 전류 Rated current	750	(mA)
무부하 회전수 No load speed	6,000	(RPM)
무부하 전류 No load current	130	(mA)
정격 출력 Rated output	12.7	(W)



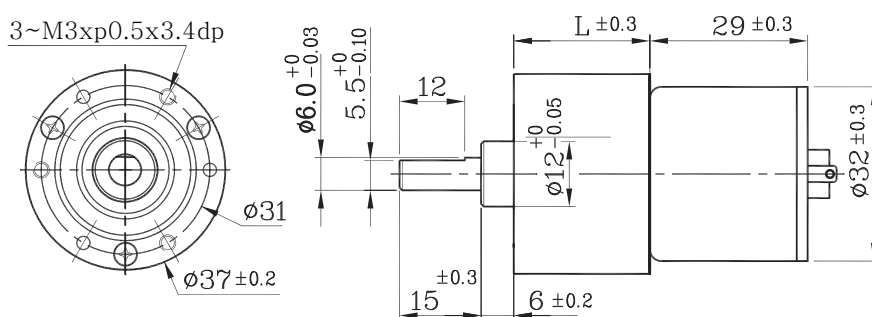
RA-35GM 11/12TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension

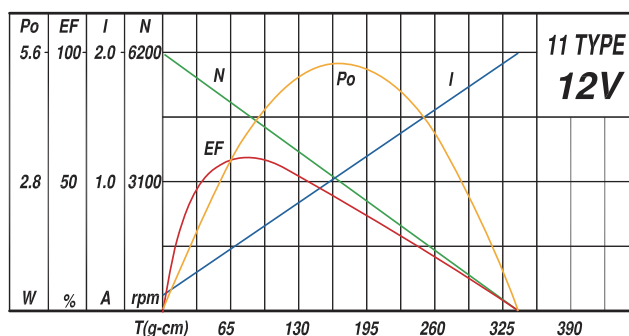


Geared Motor

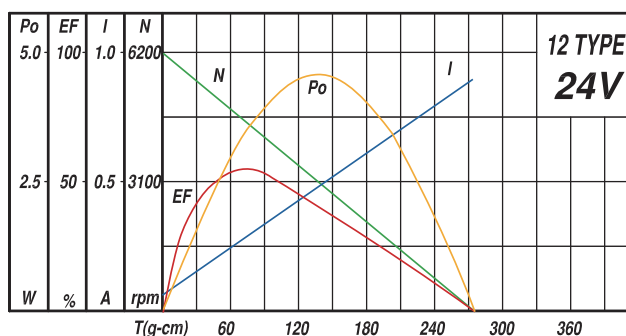
감속기 길이 (mm) Gear Head L		21,8		24,6		27,1		29,5				32					34,5			37																							
중량(g)		172		178		184		192				196					203			206																							
감속비 Reduction ratio		1/6		1/16		1/21		1/31		1/56		1/75		1/104		1/125		1/156		1/188		1/219		1/250		1/312		1/469		1/625		1/750		1/938		1/1875		1/3750		1/5625			
Type	11	정격토크(kgf-cm) Rated torque		0.3		0.68		0.9		1.25		2.2		2.6		3.6		4.4		5.5		6.0		6.0		6.0		6.0		6.0		6.0		6.0		6.0		6.0					
	12v	정격 회전수(RPM) Rated speed		800		310		245		155		90		67		49		41		33		28		24		21.5		17.6		12.3		9.1		7.8		6.3		3.2		1.6		1.0	
Type	12	무부하 회전수(RPM) No Load speed		1033		387		295		200		110		82		59		49		39		32		28		24.8		19.8		13.2		9.9		8.2		6.6		3.3		1.6		1.1	
	24v	정격토크(kgf-cm) Rated torque		0.3		0.7		0.9		1.25		2.3		2.7		3.8		4.5		5.7		6.0		6.0		6.0		6.0		6.0		6.0		6.0		6.0		6.0		6.0			
Type	12	정격 회전수(RPM) Rated speed		780		308		240		150		87		65		48		40		32		27		23.5		21.5		17.5		12		9.0		7.8		6.2		3.2		1.6		1.0	
	24v	무부하 회전수(RPM) No Load speed		1033		387		295		200		110		82		59		49		39		32		28		24.8		19.8		13.2		9.9		8.2		6.6		3.3		1.6		1.1	

Motor

11Type Motor (DC 12v)		
정격 토크 Rated torque	60	(gf-cm)
정격 회전수 Rated speed	5,100	(RPM)
정격 전류 Rated current	470	(mA)
무부하 회전수 No load speed	6,200	(RPM)
무부하 전류 No load current	120	(mA)
정격 출력 Rated output	3,14	(W)



12Type Motor (DC 24v)		
정격 토크 Rated torque	62	(gf-cm)
정격 회전수 Rated speed	5,000	(RPM)
정격 전류 Rated current	210	(mA)
무부하 회전수 No load speed	6,200	(RPM)
무부하 전류 No load current	60	(mA)
정격 출력 Rated output	3,17	(W)



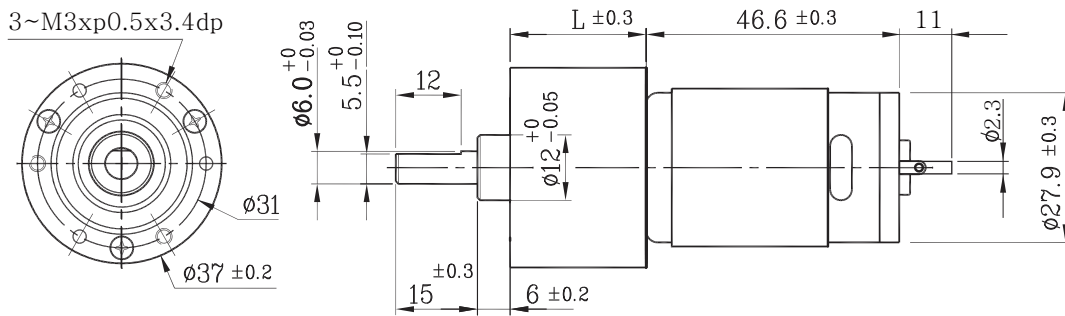
RA-35GM 13/14TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension



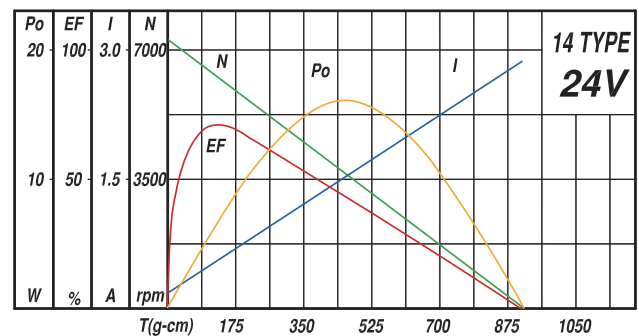
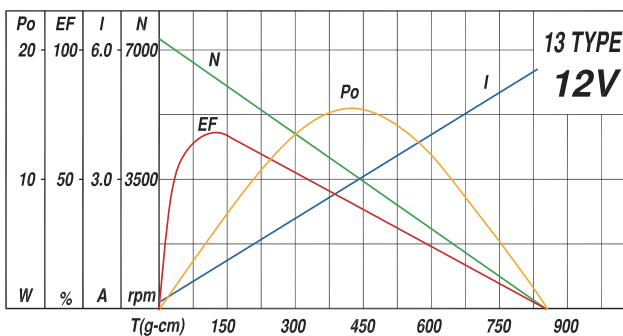
Geared Motor

감속기 길이 (mm) Gear Head L		21,8	24,6		27,1		29,5					32					34,5			37	
중량(g)		207	213		219		227					231					238			241	
감속비 Reduction ratio		1/6	1/16	1/21	1/31	1/56	1/75	1/104	1/125	1/156	1/188	1/219	1/250	1/312	1/469	1/625	1/750	1/938	1/1875	1/3750	1/5625
Type 13 12v	정격토크(kgf-cm) Rated torque	0,56	1,25	1,7	2,3	4,1	4,9	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0
	정격 회전수(RPM) Rated speed	952	381	286	191	106	79	57	47	38	32	27	23,8	19,1	12,7	9,5	7,9	6,3	3,2	1,6	1,1
	무부하 회전수(RPM) No Load speed	1216	456	347	235	130	97	70	58	46	38	33	29	23	15	11,6	9,7	7,7	3,8	1,9	1,2
Type 14 24v	정격토크(kgf-cm) Rated torque	0,66	1,5	2,0	2,7	4,8	5,75	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0
	정격 회전수(RPM) Rated speed	986	394	296	197	110	82	59	49	39	33	28	24,6	19,7	13,1	9,9	8,2	6,6	3,3	1,6	1,1
	무부하 회전수(RPM) No Load speed	1216	456	347	235	130	97	70	58	46	38	33	29	23	15	11,6	9,7	7,7	3,8	1,9	1,2

Motor

13Type Motor (DC 12v)		
정격 토크 Rated torque	110	(gf-cm)
정격 회전수 Rated speed	5,950	(RPM)
정격 전류 Rated current	900	(mA)
무부하 회전수 No load speed	7,300	(RPM)
무부하 전류 No load current	150	(mA)
정격 출력 Rated output	7.0	(W)

14Type Motor (DC 24v)		
정격 토크 Rated torque	130	(gf-cm)
정격 회전수 Rated speed	6,160	(RPM)
정격 전류 Rated current	500	(mA)
무부하 회전수 No load speed	7,300	(RPM)
무부하 전류 No load current	80	(mA)
정격 출력 Rated output	8.5	(W)



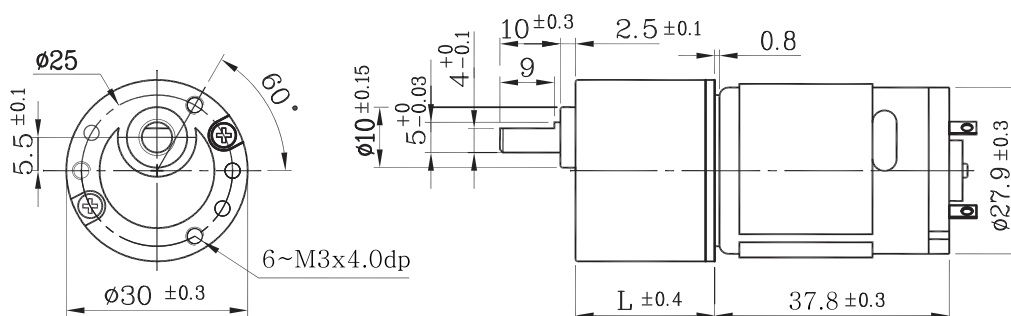
RB-30GM 02/03TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension

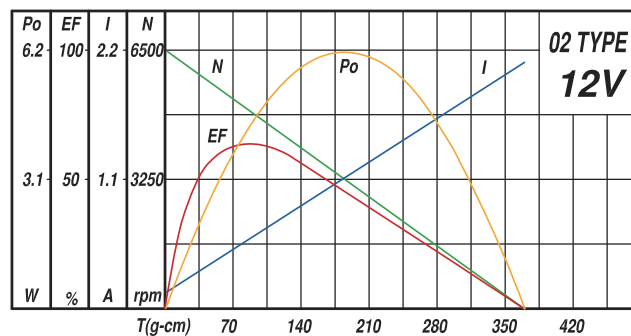


Geared Motor

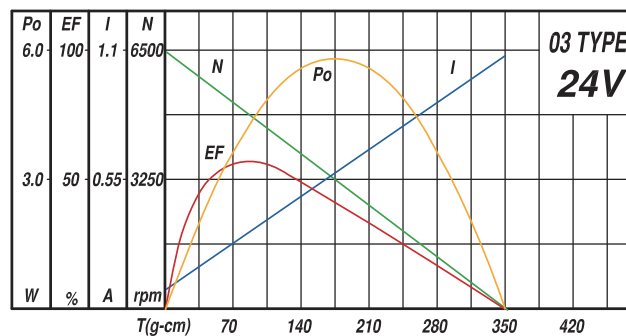
감속기 길이 (mm) Gear Head L		23,0								28,0											
중량(g)		162								169											
감속비 Reduction ratio		1/20	1/30	1/36	1/50	1/60	1/75	1/90	1/100	1/120	1/150	1/180	1/200	1/250	1/300	1/400	1/500	1/600	1/810	1/900	1/1000
02 Type 12v	정격토크(kgf-cm) Rated torque	1.0	1.5	1.5	2.0	2.0	3.0	3.0	3.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
	정격 회전수(RPM) Rated speed	255	168	150	107	91	73	62	56	46,3	37,5	32	28,8	24	19,5	15,2	12,1	10,4	7,7	6,9	6,3
	무부하 회전수(RPM) No Load speed	325	216	180	130	108	86	72	65	54	43	36	32	26	21,6	16	13	10,8	8	7,2	6,5
03 Type 24v	정격토크(kgf-cm) Rated torque	1.0	1.5	1.5	2.0	2.0	3.0	3.0	3.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
	정격 회전수(RPM) Rated speed	258	168	150	107	91	73	62	56	46,3	37,4	31,8	28,7	24	19,5	15,1	12,1	10,3	7,7	6,9	6,3
	무부하 회전수(RPM) No Load speed	325	216	180	130	108	86	72	65	54	43	36	32	26	21,6	16	13	10,8	8	7,2	6,5

Motor

02Type Motor (DC 12v)		
정격 토크 Rated torque	78	(gf-cm)
정격 회전수 Rated speed	5,290	(RPM)
정격 전류 Rated current	530	(mA)
무부하 회전수 No load speed	6,500	(RPM)
무부하 전류 No load current	150	(mA)
정격 출력 Rated output	4.22	(W)



03Type Motor (DC 24v)		
정격 토크 Rated torque	74	(gf-cm)
정격 회전수 Rated speed	5,250	(RPM)
정격 전류 Rated current	250	(mA)
무부하 회전수 No load speed	6,500	(RPM)
무부하 전류 No load current	85	(mA)
정격 출력 Rated output	3.97	(W)



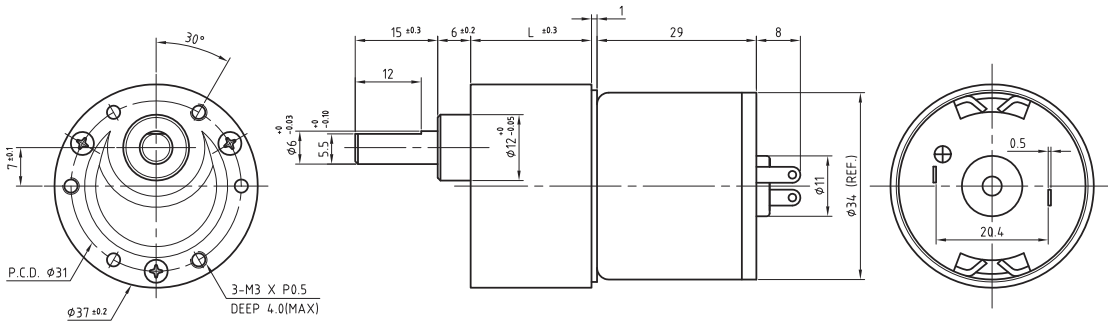
RB-35GM 3429H, 3429A

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10°C ~ +60°C



SPECIFICATION

Dimension



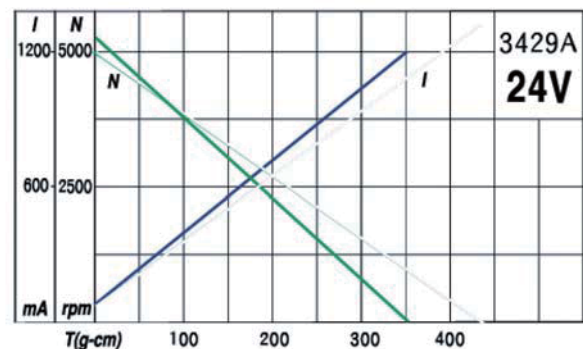
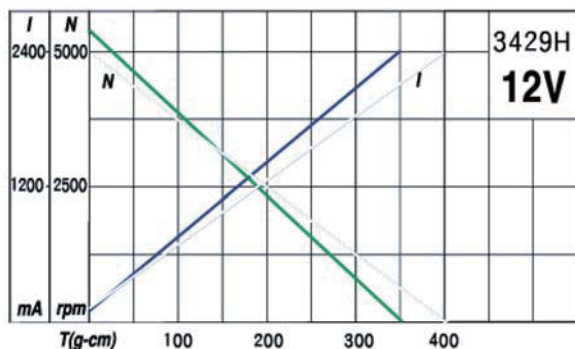
Geared Motor

감속기 길이 Gear head L (mm)		19.5		22		24.5				27						29.5				32																					
중량(g)		189		196		203				209						215				223																					
감속비 Reduction ratio		1/10		1/18		1/30		1/50		1/60		1/75		1/90		1/100		1/120		1/150		1/180		1/200		1/250		1/300		1/500		1/600		1/750		1/1000		1/1500		1/3000	
3429H TYPE 12V	Rated torque (Kgf·cm)	0.4	0.65	1	1.6	1.9	2	2.9	3	3.5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
	Rated speed (RPM)	450	250	150	90	75	60	50	45	37.5	30	25	22.5	18	15	9	7.5	6	4.5	3	1.5																				
	No load speed (RPM)	520	288	173	104	86	69	57	52	43.3	34.6	28.8	26	20.8	17.3	10.4	8.6	6.9	5.2	3.4	1.7																				
3429A TYPE 24V	Rated torque (Kgf·cm)	0.4	0.65	1	1.6	1.9	2	2.9	3	3.5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
	Rated speed (RPM)	470	261	156	94	78.3	62.6	52.2	47	39.1	31.3	26.1	23.5	18.8	15.6	9.4	7.8	6.2	4.7	3.1	1.5																				
	No load speed (RPM)	520	288	173	104	86	69	57	52	43.3	34.6	28.8	26	20.8	17.3	10.4	8.6	6.9	5.2	3.4	1.7																				

Motor

3429H Motor (DC 12v)		
정격 토크 Rated torque	30	(gf·cm)
정격 회전수 Rated speed	5,000	(RPM)
정격 전류 Rated current	≤230	(mA)
무부하 회전수 No load speed	5,200	(RPM)
무부하 전류 No load current	≤90	(mA)
정격 출력 Rated output	1.54	(W)

3429A Motor (DC 24v)		
정격 토크 Rated torque	30	(gf·cm)
정격 회전수 Rated speed	5,000	(RPM)
정격 전류 Rated current	≤130	(mA)
무부하 회전수 No load speed	5,200	(RPM)
무부하 전류 No load current	≤70	(mA)
정격 출력 Rated output	1.54	(W)



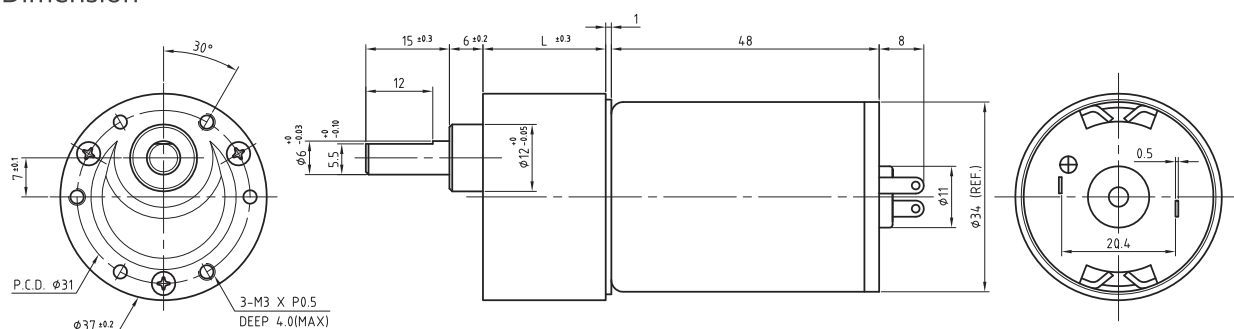
RB-35GM 3448D, 3448A

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10°C ~ +60°C



SPECIFICATION

Dimension

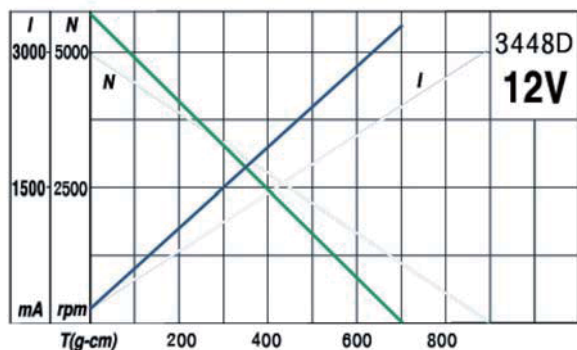


Geared Motor

감속기 길이 (mm) Gear Head L		19.5		22		24.5				27						29.5						32	
중량(g)		191		198		205				211						217						225	
감속비 Reduction ratio		1/6	1/10	1/18	1/30	1/50	1/60	1/75	1/90	1/100	1/120	1/150	1/180	1/200	1/250	1/300	1/400	1/500	1/600	1/750	1/1000	1/1500	1/3000
3448D 12V	Rated Torque (Kgf.cm)	0.24	0.4	0.65	1.1	1.6	1.9	2.4	2.9	3.3	3.5	4.4	5.3	5.9	6	6	6	6	6	6	6	6	6
	Rated Speed (RPM)	833	500	277	166	100	83	66	55	50	41.6	33.3	27.7	25	20	16.6	12.5	10	8.3	6.6	5	3.3	1.6
	No Load Speed (RPM)	900	540	300	180	108	90	72	60	54	45	36	30	27	21.6	18	13.5	10.8	9	7.2	5.4	3.6	1.8
3448A 24V	Rated Torque (Kgf.cm)	0.24	0.4	0.65	1.1	1.6	1.9	2.4	2.9	3.3	3.5	4.4	5.3	5.9	6	6	6	6	6	6	6	6	6
	Rated Speed (RPM)	833	500	277	166	100	83	66	55	50	41.6	33.3	27.7	25	20	16.6	12.5	10	8.3	6.6	5	3.3	1.6
	No Load Speed (RPM)	866	520	288	173	104	86	69	57	52	43.3	34.6	28.8	26	20.8	17.3	13	10.4	8.6	6.9	5.2	3.4	1.7

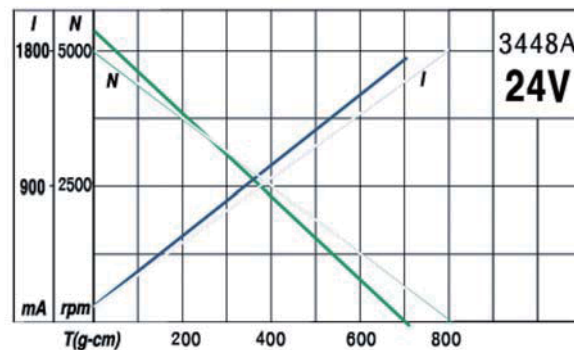
3448D Motor (DC 12v)

정격 토크 Rated torque	50	(gf·cm)
정격 회전수 Rated speed	5,000	(RPM)
정격 전류 Rated current	≤350	(mA)
무부하 회전수 No load speed	5,400	(RPM)
무부하 전류 No load current	≤150	(mA)
정격 출력 Rated output	2.57	(W)



3448A Motor (DC 24v)

정격 토크 Rated torque	50	(gf·cm)
정격 회전수 Rated speed	5,000	(RPM)
정격 전류 Rated current	≤200	(mA)
무부하 회전수 No load speed	5,200	(RPM)
무부하 전류 No load current	≤80	(mA)
정격 출력 Rated output	2.57	(W)



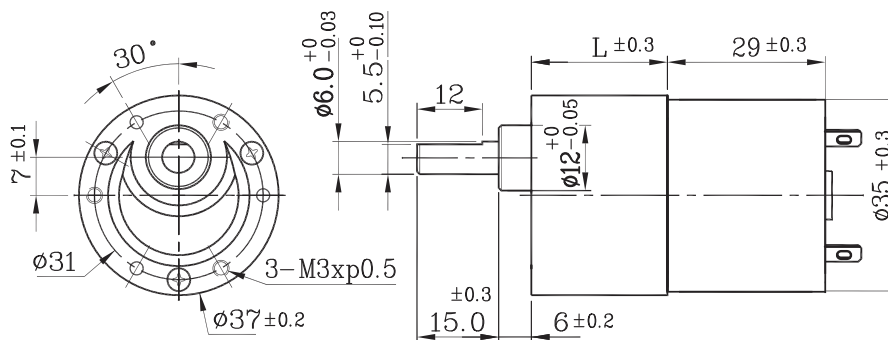
RB-35GM 01/02 TYPE

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10°C ~ +60°C



SPECIFICATION

■ Dimension

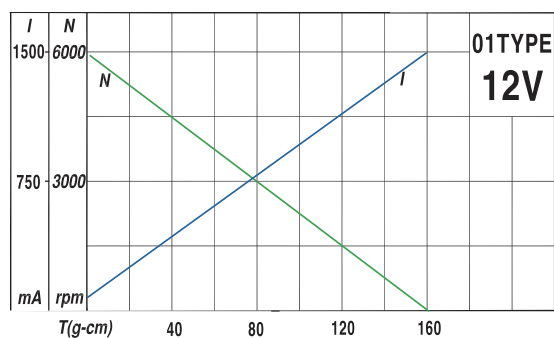


■ Geared Motor

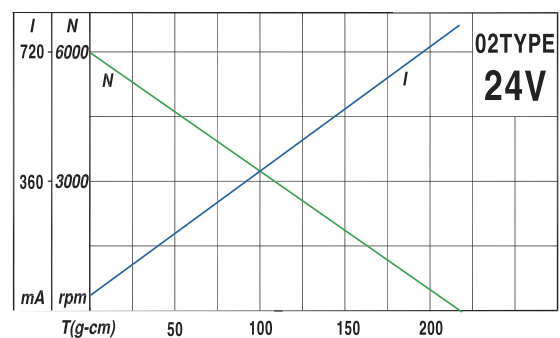
감속기 길이 Gear head L (mm)	19.5	22	24.5						27						29.5				32	
중량(g)	189	196	203						209						215				223	
감속비 Reduction ratio	1/10	1/18	1/30	1/50	1/60	1/75	1/90	1/100	1/120	1/150	1/180	1/200	1/250	1/300	1/500	1/600	1/750	1/1000	1/1500	1/3000
01 TYPE 12V	Rated torque (Kgf·cm)	0.28	0.46	0.77	1.2	1.4	1.7	2.1	2.3	2.5	3.1	3.7	4	4	4	4	4	4	4	4
	Rated speed (RPM)	465	258	155	93	78	62	52	47	39	31	26	23	19	16.8	10.7	9	7.4	5.7	3.9
	No load speed (RPM)	600	333	200	120	100	80	66	60	50	40	33	30	24	20	12	10	8	6	4
02 TYPE 24V	Rated torque (Kgf·cm)	0.28	0.46	0.77	1.2	1.4	1.7	2.1	2.3	2.5	3.1	3.7	4	4	4	4	4	4	4	4
	Rated speed (RPM)	504	280	168	101	84	67	56	50	42	34	28	25	20	17.9	11	9.2	7.5	5.7	3.9
	No load speed (RPM)	600	333	200	120	100	80	66	60	50	40	33	30	24	20	12	10	8	6	4

■ Motor

01Type Motor (DC 12v)		
정격 토크 Rated torque	35	(gf·cm)
정격 회전수 Rated speed	4,650	(RPM)
정격 전류 Rated current	210	(mA)
무부하 회전수 No load speed	6,000	(RPM)
무부하 전류 No load current	80	(mA)
정격 출력 Rated output	2.2	(W)



02Type Motor (DC 24v)		
정격 토크 Rated torque	35	(gf·cm)
정격 회전수 Rated speed	5,037	(RPM)
정격 전류 Rated current	154	(mA)
무부하 회전수 No load speed	6,000	(RPM)
무부하 전류 No load current	30	(mA)
정격 출력 Rated output	1.81	(W)



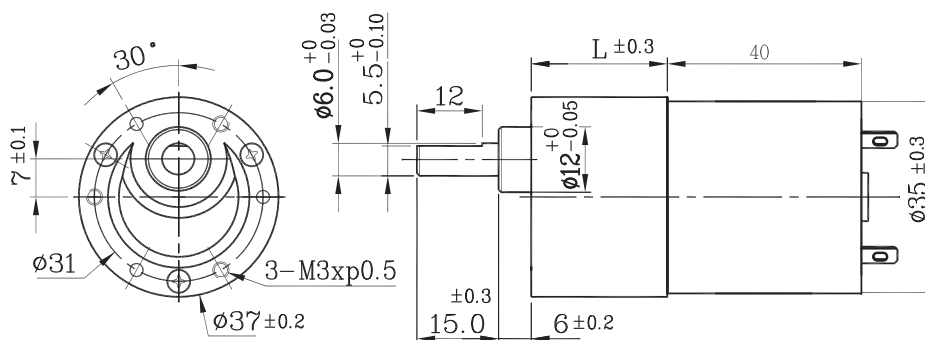
RB-35GM 03/04 TYPE

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10℃ ~ +60℃



SPECIFICATION

Dimension

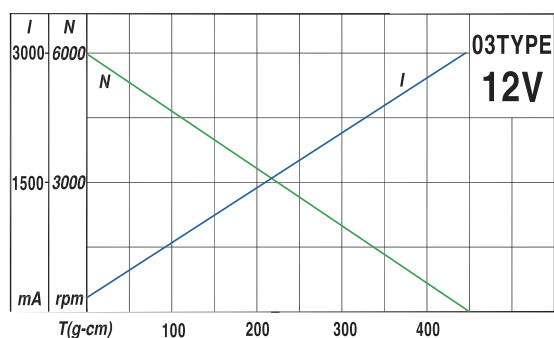


Geared Motor

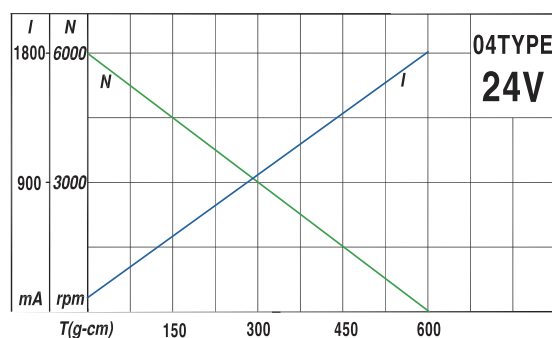
감속기 길이 (mm) Gear Head L		19,5		22		24,5				27						29,5				32																					
중량(g)		241		248		255				261						267				275																					
감속비 Reduction ratio		1/10		1/18		1/30		1/50		1/60		1/75		1/90		1/100		1/120		1/150		1/180		1/200		1/250		1/300		1/500		1/600		1/750		1/1000		1/1500		1/3000	
Type 03 12v	정격토크(kgf-cm) Rated torque	0,5	0,8	1,3	2,0	2,4	3,0	3,6	4,1	4,4	5,5	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0		
	정격 회전수(RPM) Rated speed	521	289	174	104	87	70	58	52	43	35	30	27	22	19	11,5	9,6	7,8	6	4	2																				
	무부하 회전수(RPM) No Load speed	600	333	200	120	100	80	66	60	50	40	33	30	24	20	12	10	8	6	4	2																				
Type 04 24v	정격토크(kgf-cm) Rated torque	0,6	1,0	1,7	2,5	3,0	3,8	4,0	5,1	5,5	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0		
	정격 회전수(RPM) Rated speed	522	290	174	104	87	69	60	52	43	35	30	27	22	19	11,5	9,6	7,8	6	4	2																				
	무부하 회전수(RPM) No Load speed	600	333	200	120	100	80	66	60	50	40	33	30	24	20	12	10	8	6	4	2																				

Motor

03Type Motor (DC 12v)		
정격 토크 Rated torque	62	(gf-cm)
정격 회전수 Rated speed	5,210	(RPM)
정격 전류 Rated current	460	(mA)
무부하 회전수 No load speed	6,000	(RPM)
무부하 전류 No load current	70	(mA)
정격 출력 Rated output	3,3	(W)



04Type Motor (DC 24v)		
정격 토크 Rated torque	78	(gf-cm)
정격 회전수 Rated speed	5,220	(RPM)
정격 전류 Rated current	270	(mA)
무부하 회전수 No load speed	6,000	(RPM)
무부하 전류 No load current	40	(mA)
정격 출력 Rated output	4,18	(W)



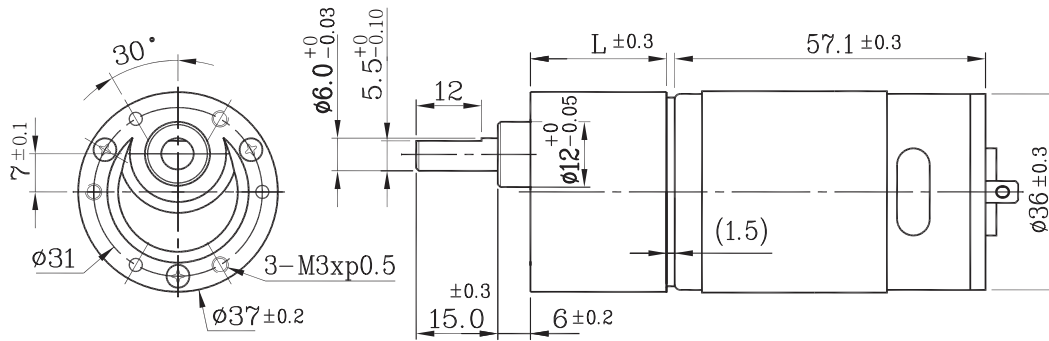
RB-35GM 07/09 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension



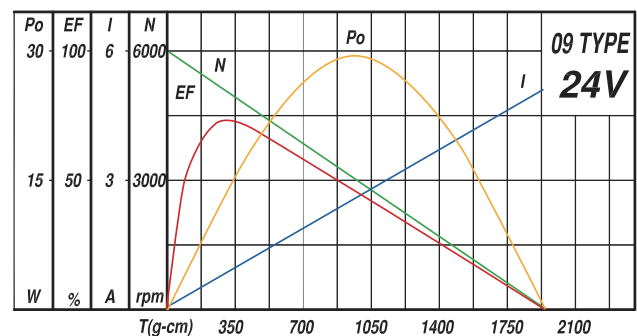
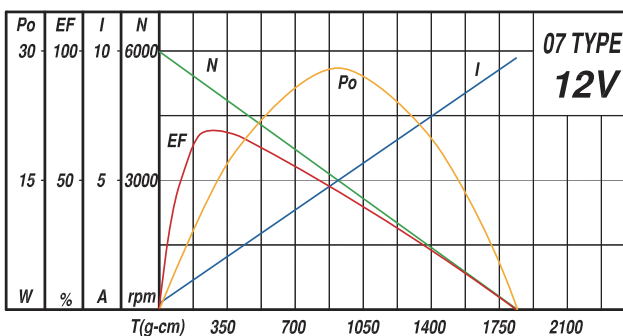
Geared Motor

감속기 길이 (mm) Gear Head L		19,5		22		24,5						27						29,5						32																	
중량(g)		306		313		320						326						332						340																	
감속비 Reduction ratio		1/10		1/18		1/30		1/50		1/60		1/75		1/90		1/100		1/120		1/150		1/180		1/200		1/250		1/300		1/500		1/600		1/750		1/1000		1/1500		1/3000	
07 Type 12v	정격토크(kgf-cm) Rated torque	1.0	1.0	2.0	3.0	3.0	4.0	4.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		
	정격 회전수(RPM) Rated speed	528	313	185	109	95	76	63	55	47	36	31,5	29	22,5	19,5	11,5	9,8	8,0	5,9	3,9	2,0																				
	무부하 회전수(RPM) No Load speed	600	333	200	120	100	80	66	60	50	40	33	30	24	20	12	10	8	6	4	2																				
09 Type 24v	정격토크(kgf-cm) Rated torque	1.0	1.0	2.0	3.0	3.0	4.0	4.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		
	정격 회전수(RPM) Rated speed	532	315	186	111	96	77	64	55,5	48	36	32	29,5	23	20	11,8	9,9	8,0	6,0	4,0	2,0																				
	무부하 회전수(RPM) No Load speed	600	333	200	120	100	80	66	60	50	40	33	30	24	20	12	10	8	6	4	2																				

Motor

07Type Motor (DC 12v)		
정격 토크 Rated torque	250	(gf-cm)
정격 회전수 Rated speed	4,930	(RPM)
정격 전류 Rated current	1,600	(mA)
무부하 회전수 No load speed	6,000	(RPM)
무부하 전류 No load current	250	(mA)
정격 출력 Rated output	12.8	(W)

09Type Motor (DC 24v)		
정격 토크 Rated torque	240	(gf-cm)
정격 회전수 Rated speed	5,150	(RPM)
정격 전류 Rated current	750	(mA)
무부하 회전수 No load speed	6,000	(RPM)
무부하 전류 No load current	130	(mA)
정격 출력 Rated output	12.7	(W)



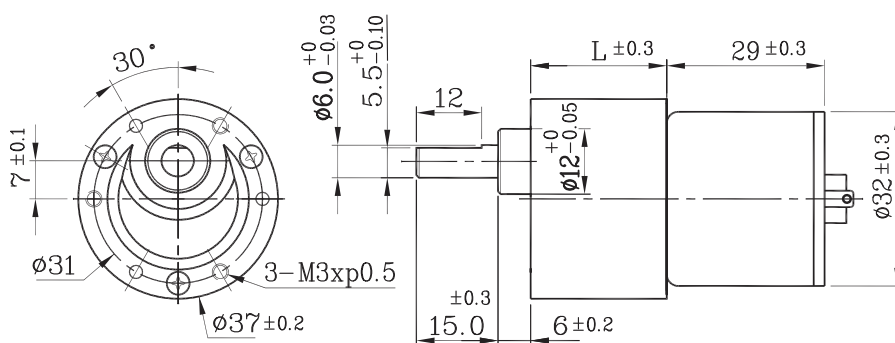
RB-35GM 11/12 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension

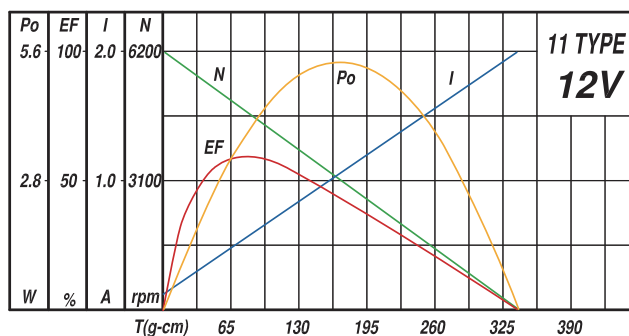


Geared Motor

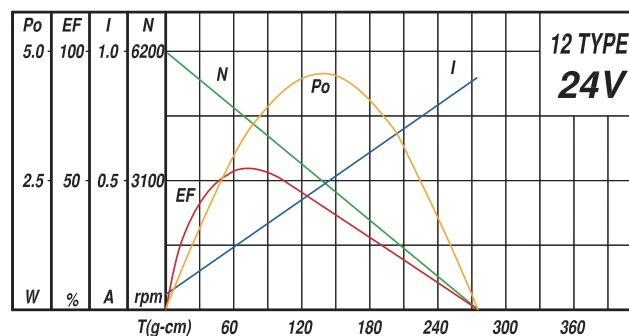
감속기 길이 (mm) Gear Head L		19,5	22		24,5					27					29,5				32		
중량(g)		161	168		175					181					187				195		
감속비 Reduction ratio		1/10	1/18	1/30	1/50	1/60	1/75	1/90	1/100	1/120	1/150	1/180	1/200	1/250	1/300	1/500	1/600	1/750	1/1000	1/1500	1/3000
Type 11 12v	정격토크(kgf-cm) Rated torque	0,5	0,8	1,3	2,0	2,4	2,9	3,5	3,9	4,2	5,3	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0
	정격 회전수(RPM) Rated speed	490	270	168	100	84	67	57	51	42,5	34	29	26	22	19	11,2	9,5	8,0	6,0	4,1	2,0
	무부하 회전수(RPM) No Load speed	620	344	206	124	103	82	68	62	51	41	34	31	24	20	12	10,3	8,2	6,2	4,1	2
Type 12 24v	정격토크(kgf-cm) Rated torque	0,5	0,8	1,4	2,0	2,4	3,0	3,6	4,0	4,4	5,4	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0
	정격 회전수(RPM) Rated speed	480	250	160	98	83	65	56	50	41,5	33	28,5	26	22	19	11	9,3	7,9	5,9	4,0	2,0
	무부하 회전수(RPM) No Load speed	620	344	206	124	103	82	68	62	51	41	34	31	24	20	12	10,3	8,2	6,2	4,1	2

Motor

11Type Motor (DC 12v)		
정격 토크 Rated torque	60	(gf-cm)
정격 회전수 Rated speed	5,100	(RPM)
정격 전류 Rated current	470	(mA)
무부하 회전수 No load speed	6,200	(RPM)
무부하 전류 No load current	120	(mA)
정격 출력 Rated output	3,14	(W)



12Type Motor (DC 24v)		
정격 토크 Rated torque	62	(gf-cm)
정격 회전수 Rated speed	5,000	(RPM)
정격 전류 Rated current	210	(mA)
무부하 회전수 No load speed	6,200	(RPM)
무부하 전류 No load current	60	(mA)
정격 출력 Rated output	3,17	(W)



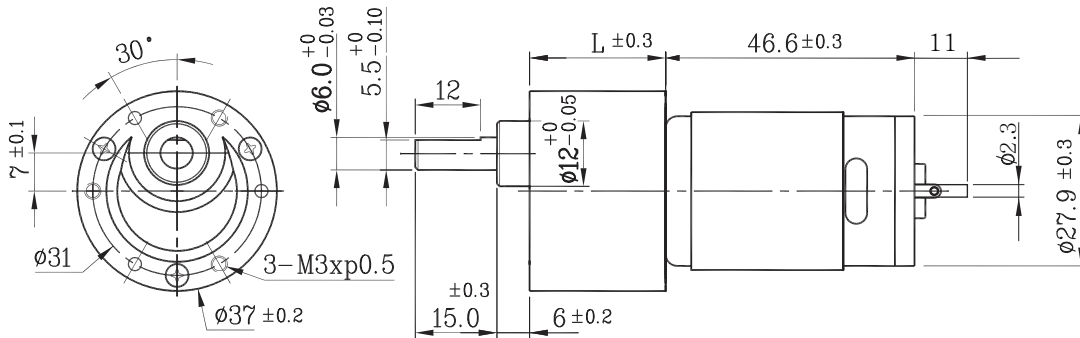
RB-35GM 13/14 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension



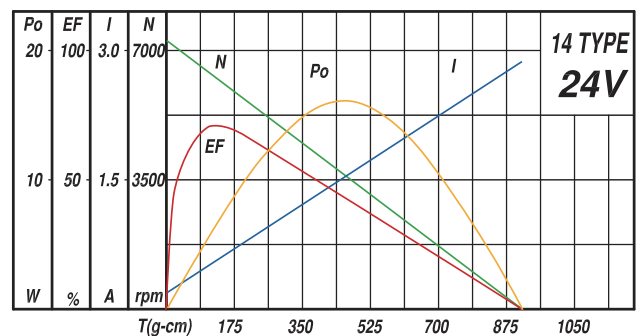
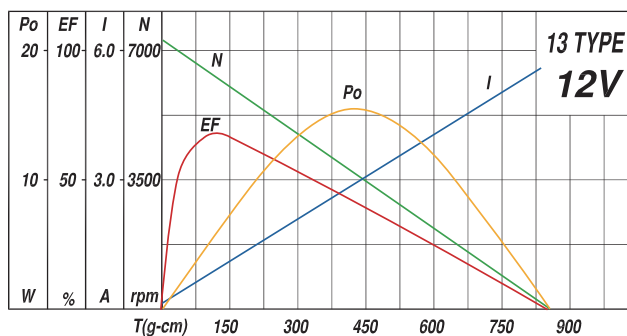
Geared Motor

감속기 길이 (mm) Gear Head L		19,5		22		24,5						27						29,5						32																			
중량(g)		196		203		210						216						222						230																			
감속비 Reduction ratio		1/10		1/18		1/30		1/50		1/60		1/75		1/90		1/100		1/120		1/150		1/180		1/200		1/250		1/300		1/500		1/600		1/750		1/1000		1/1500		1/3000			
Type	13	정격토크(kgf-cm) Rated torque		0,89		1,45		2,4		3,6		4,4		5,4		6,0		6,0		6,0		6,0		6,0		6,0		6,0		6,0		6,0		6,0		6,0		6,0					
	12v	정격 회전수(RPM) Rated speed		595		331		198		119		99		79		66		60		50		40		33		30		24		20		11,9		9,9		7,9		6,0		4,0		2,0	
		무부하 회전수(RPM) No Load speed		730		405		243		146		121		97		81		73		60		48		40		36		29		24		14		12,1		9,7		7,3		4,8		2,4	
Type	14	정격토크(kgf-cm) Rated torque		1,05		1,7		2,8		4,3		5,2		6,0		6,0		6,0		6,0		6,0		6,0		6,0		6,0		6,0		6,0		6,0		6,0		6,0					
	24v	정격 회전수(RPM) Rated speed		616		342		205		123		103		82		68		62		51		41		34		31		25		21		12,3		10,3		8,2		6,2		4,1		2,1	
		무부하 회전수(RPM) No Load speed		730		405		243		146		121		97		81		73		60		48		40		36		29		24		14		12,1		9,7		7,3		4,8		2,4	

Motor

13Type Motor (DC 12v)		
정격 토크 Rated torque	110	(gf-cm)
정격 회전수 Rated speed	5,950	(RPM)
정격 전류 Rated current	900	(mA)
무부하 회전수 No load speed	7,300	(RPM)
무부하 전류 No load current	150	(mA)
정격 출력 Rated output	7,0	(W)

14Type Motor (DC 24v)		
정격 토크 Rated torque	130	(gf-cm)
정격 회전수 Rated speed	6,160	(RPM)
정격 전류 Rated current	500	(mA)
무부하 회전수 No load speed	7,300	(RPM)
무부하 전류 No load current	80	(mA)
정격 출력 Rated output	8,5	(W)



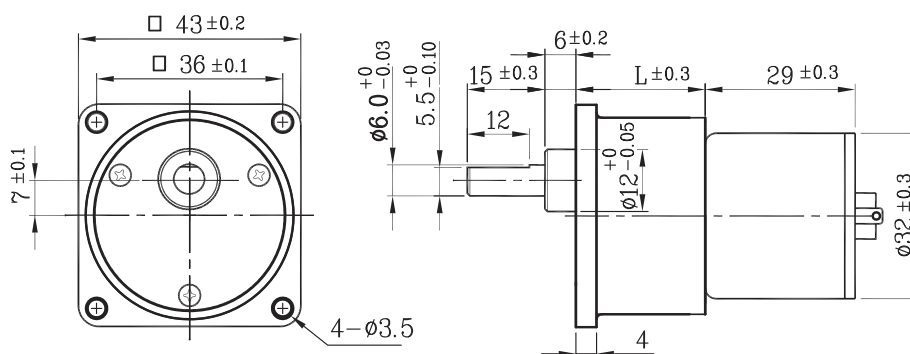
RB-35GM 21/22 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension

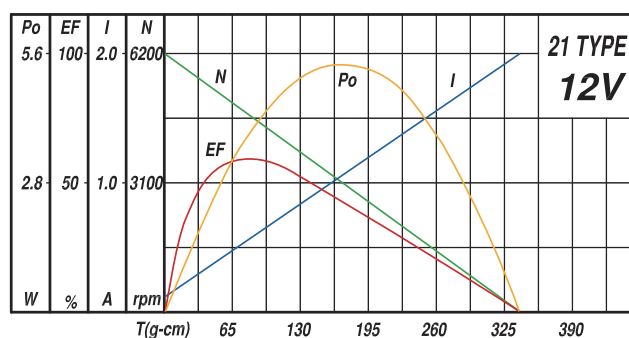


Geared Motor

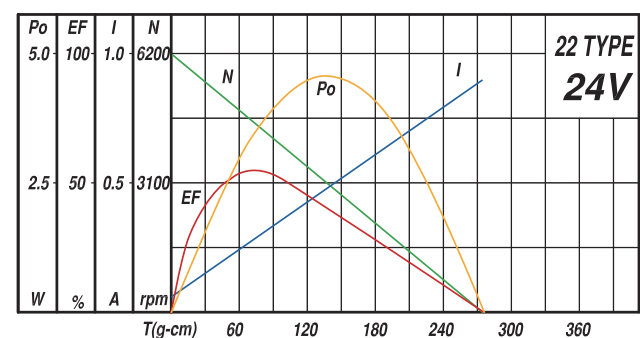
감속기 길이 Gear head L (mm)		19.5	22		24.5					27					29.5					32	
중량(g)		189	196		203					209					215					223	
감속비 Reduction ratio		1/10	1/18	1/30	1/50	1/60	1/75	1/90	1/100	1/120	1/150	1/180	1/200	1/250	1/300	1/500	1/600	1/750	1/1000	1/1500	1/3000
21 TYPE 12V	Rated torque (Kgf.cm)	0.28	0.46	0.77	1.2	1.4	1.7	2.1	2.3	2.5	3.1	3.7	4	4	4	4	4	4	4	4	4
	Rated speed (RPM)	465	258	155	93	78	62	52	47	39	31	26	23	19	16.8	10.7	9	7.4	5.7	3.9	2
	No load speed (RPM)	600	333	200	120	100	80	66	60	50	40	33	30	24	20	12	10	8	6	4	2
22 TYPE 24V	Rated torque (Kgf.cm)	0.28	0.46	0.77	1.2	1.4	1.7	2.1	2.3	2.5	3.1	3.7	4	4	4	4	4	4	4	4	4
	Rated speed (RPM)	504	280	168	101	84	67	56	50	42	34	28	25	20	17.9	11	9.2	7.5	5.7	3.9	1.9
	No load speed (RPM)	600	333	200	120	100	80	66	60	50	40	33	30	24	20	12	10	8	6	4	2

Motor

21Type Motor (DC 12v)			
정격 토크 Rated torque	60	(gf-cm)	
정격 회전수 Rated speed	5,100	(RPM)	
정격 전류 Rated current	470	(mA)	
무부하 회전수 No load speed	6,200	(RPM)	
무부하 전류 No load current	120	(mA)	
정격 출력 Rated output	3.14	(W)	



22Type Motor (DC 24v)			
정격 토크 Rated torque	62	(gf-cm)	
정격 회전수 Rated speed	5,000	(RPM)	
정격 전류 Rated current	210	(mA)	
무부하 회전수 No load speed	6,200	(RPM)	
무부하 전류 No load current	60	(mA)	
정격 출력 Rated output	3.17	(W)	



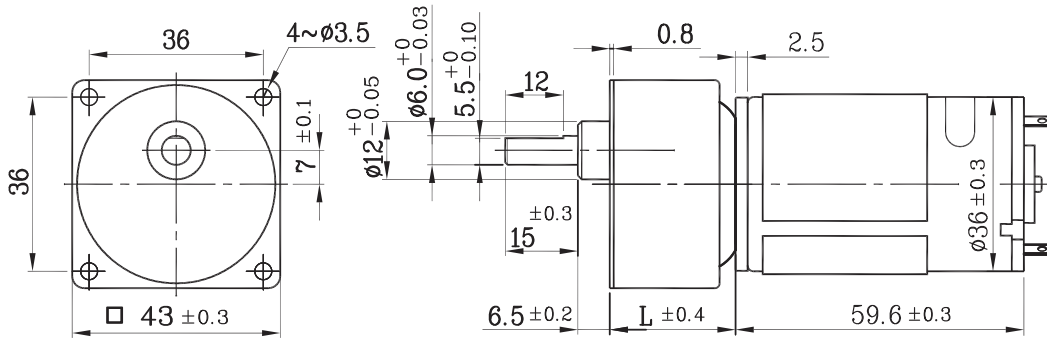
RB-40GM 03/04 TYPE

- 엔코더 타입 53, 54 Page 참고
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

■ Dimension



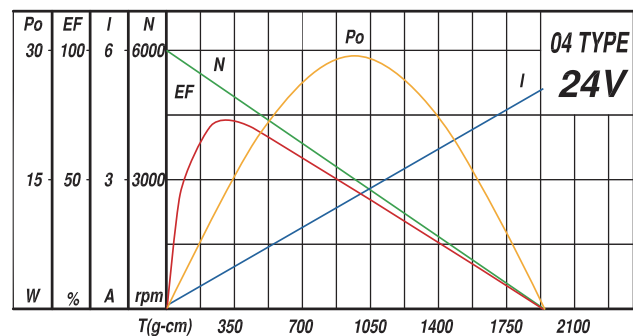
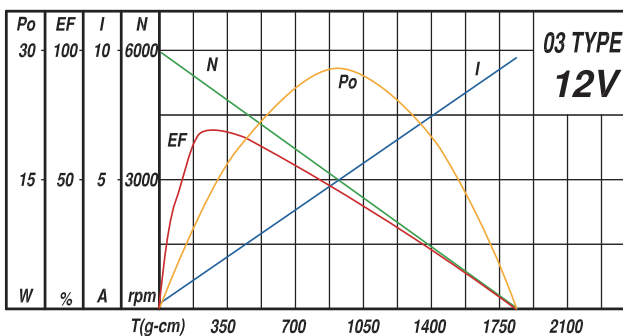
■ Geared Motor

감속기 길이 (mm) Gear Head L		23,9	26,4						28,9						31,4							
중량(g)		330	336						345						350							
감속비 Reduction ratio		1/10	1/15	1/18	1/25	1/30	1/36	1/50	1/60	1/75	1/90	1/100	1/120	1/150	1/180	1/200	1/250	1/300	1/360	1/400	1/500	
Type	03	정격토크(kgf-cm) Rated torque	1.0	2.7	3.0	4.0	4.0	4.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
	12v	정격 회전수(RPM) Rated speed	519	321	275	198	172	145	103	91	72,5	61	54	46	37	31	28,2	22,5	19,2	16	14,5	11,8
		무부하 회전수(RPM) No Load speed	600	400	333	240	200	166	120	100	80	66	60	50	40	33	30	24	20	16,6	15	12
Type	04	정격토크(kgf-cm) Rated torque	1.0	2.6	3.0	4.0	4.0	4.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
	24v	정격 회전수(RPM) Rated speed	530	340	283	207	176	149	107	92	73	61	54	46	37	31	28,5	23	19,1	16,2	14,5	11,8
		무부하 회전수(RPM) No Load speed	600	400	333	240	200	166	120	100	80	66	60	50	40	33	30	24	20	16,6	15	12

■ Motor

01Type Motor (DC 12v)			
정격 토크 Rated torque	250	(gf-cm)	
정격 회전수 Rated speed	4,930	(RPM)	
정격 전류 Rated current	1,600	(mA)	
무부하 회전수 No load speed	6,000	(RPM)	
무부하 전류 No load current	250	(mA)	
정격 출력 Rated output	12,8	(W)	

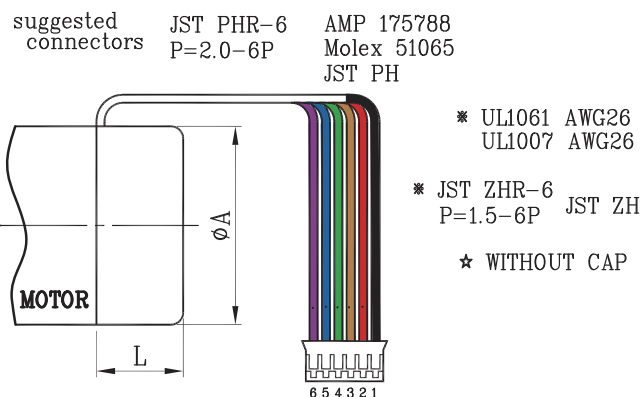
02Type Motor (DC 24v)			
정격 토크 Rated torque	240	(gf-cm)	
정격 회전수 Rated speed	5,150	(RPM)	
정격 전류 Rated current	750	(mA)	
무부하 회전수 No load speed	6,000	(RPM)	
무부하 전류 No load current	130	(mA)	
정격 출력 Rated output	12,7	(W)	



Magnet Encoder

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10°C ~ +60°C

Two channel Hall Effect Encoder

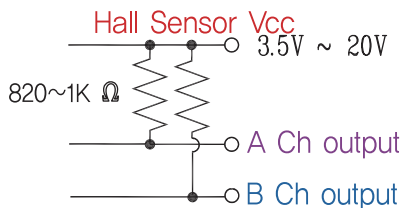


φA	모델명 Motor	L	엔코더 펄스 수 COUNTS POLES OF PER TURN (PPR)
* Ø12	IG12GM	★ 6.5	6 (3)
* Ø16	IG16GM	★ 6.5	6 (3)
Ø20	IG22GM, RA20GM	★ 8.5	6 (3)
Ø27.3	IG30, 32GM RB30GM 02, 03	12.6	26 (13)
Ø32.3	RB35GM 11, 12	14.3	26 (13)
Ø35.3	IG32PGM RA, B 35GM 07, 09	13.5	26 (13)
Ø42.5	IG42GM	15.5	38 (19)

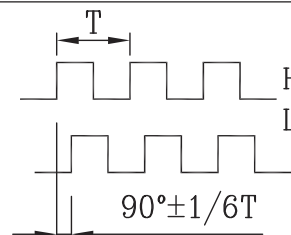
엔코더 컨넥터 핀별 내용 :
Two Channel Encoder Connections :

1. Black : -MOTOR
2. Red : +MOTOR
3. Brown : HALL SENSOR Vcc
4. Green : HALL SENSOR GND
5. Blue : HALL SENSOR B Vout
6. Purple : HALL SENSOR A Vout

출력회로 구성
Output Circuit :



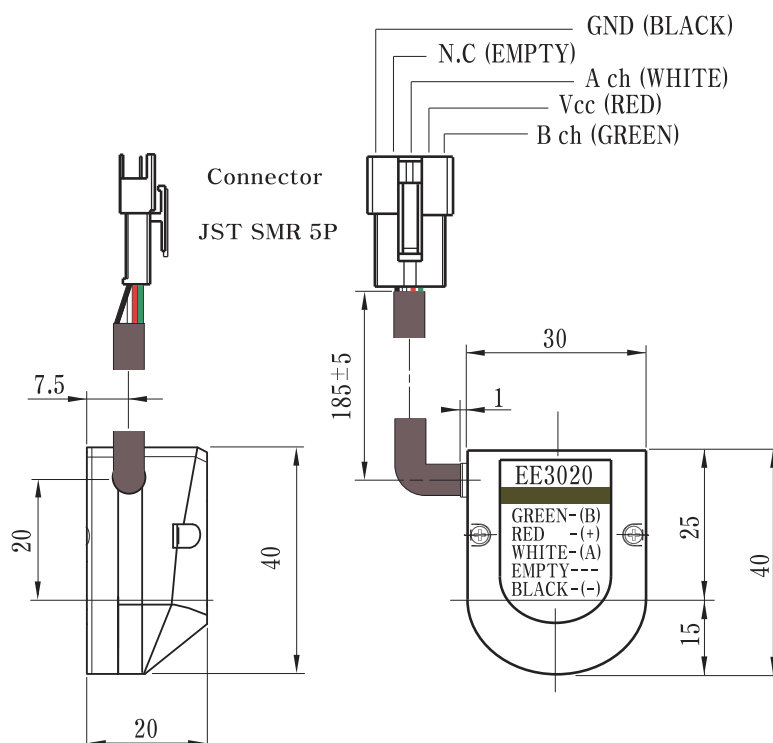
출력 파형
Output Wave :



Characteristics	Symbol	Test conditions	Min	Ref	Max	Units
Supply Voltage	VCC	—	3.5	—	20	V
Output Saturation Voltage	Vce(sat)	Vcc=14v ; Ic=20mA	—	300	700	mV
Output Leakage Current	Icex	Vce=14v ; Vcc=14v	—	0.1	10	uV
Supply Current	Ice	Vcc=20v Output open	—	5	10	mV
Output Rise Time	tr	Vcc=14v ; RL=820 Ohm	—	0.3	1.5	uS
Output fall Time	tr	Vcc=14v ; RL=820 Ohm	—	0.3	1.5	uS

Optical Encoder

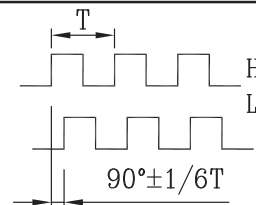
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +80^{\circ}\text{C}$



엔코더 컨넥터 핀별 내용:
Two Channel Encoder Connections :

1. Black : GND
2. N.C : Empty
3. White : A channel Vout
4. Red : Vcc
5. Green : B channel Vout

출력 파형
Output Wave :



적용 가능 모델

IG32GM	07TYPE, 09TYPE
IG32PGM	07TYPE, 09TYPE
IG42GM	04TYPE, 05TYPE
IG43GM	03TYPE, 04TYPE

분해능

256ppr
512ppr

구동조건

Power Source	$5V \pm 10\%$
Current Consumption	$\leq 30\text{mA}$
Output Signal	A, B.
Phase Difference	$90^{\circ} \pm 45^{\circ}$
Response Frequency	40 kHz
Operation Temperature	$-10^{\circ}\text{C} \sim 80^{\circ}\text{C}$
Sense Mode	Optical

3

BLDC MOTOR SERIES

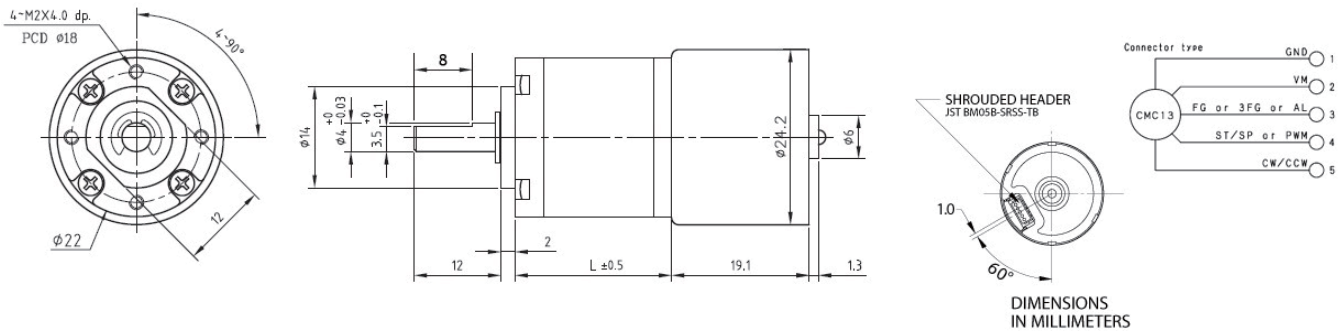
BL2419 WITH IG-22

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10°C ~ +60°C



SPECIFICATION

■ Dimension



■ Geared Motor

감속기 길이 (mm) Gear Head L		14,4	18,05				21,7				25,35						29				
중량(g)		58	62				66				71						75				
감속비 Reduction ratio		1/4	1/14	1/16	1/19	1/53	1/62	1/72	1/84	1/104	1/198	1/231	1/270	1/316	1/370	1/455	1/742	1/1014	1/1249	1/1621	1/1996
BL 2419 12V	정격토크(gf-cm) Rated torque	170	519	594	705	1685	1972	2000	2000	2000	2500	2500	2500	2500	2500	3000	3000	3000	3000	3000	
	정격 회전수(RPM) Rated speed	725	207	181	153	55	46,8	47,3	45,2	40,9	23,6	21,2	18,8	16,6	14,5	12,2	7,5	5,7	4,7	3,7	3,0
	무부하 회전수(RPM) No Load speed	1550	443	387	326	117	100	86	74	60	31,3	26,8	23	19,6	16,7	13,6	8,3	6,1	5	3,8	3,1
BL 2419 24V	정격토크(gf-cm) Rated torque	147	450	514	610	1460	1707	1983	2000	2000	2500	2500	2500	2500	2500	3000	3000	3000	3000	3000	
	정격 회전수(RPM) Rated speed	1325	378	331	279	100	85	74	72	63	35,5	31,4	27,6	24,2	21,1	17,5	10,8	8,1	6,6	5,2	4,2
	무부하 회전수(RPM) No Load speed	2175	621	544	458	164	140	121	104	84	44	38	32	27,5	23,5	19,1	11,7	8,6	7	5,4	4,3

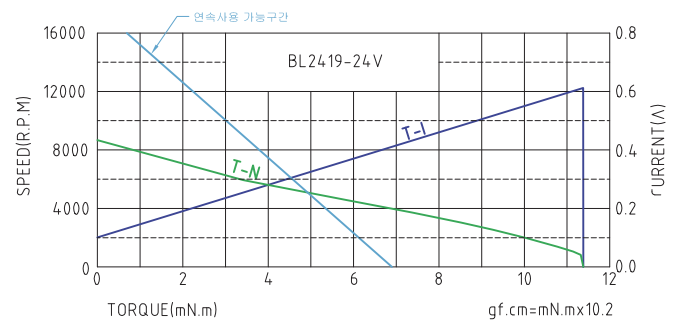
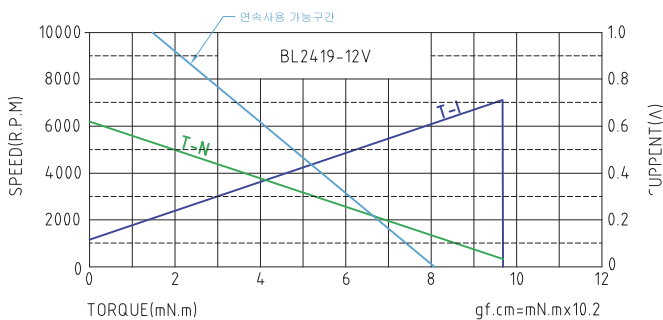
■ Motor

01Type Motor (DC 12v)

정격 토크 Rated torque	53,0	(gf-cm)
정격 회전수 Rated speed	2,900	(RPM)
정격 전류 Rated current	0,44	(A)
무부하 회전수 No load speed	6,200	(RPM)
무부하 전류 No load current	0,12	(A)
정격 출력 Rated output	1,6	(W)

02Type Motor (DC 24v)

정격 토크 Rated torque	45,9	(gf-cm)
정격 회전수 Rated speed	5,300	(RPM)
정격 전류 Rated current	0,31	(A)
무부하 회전수 No load speed	8,700	(RPM)
무부하 전류 No load current	0,1	(A)
정격 출력 Rated output	2,5	(W)



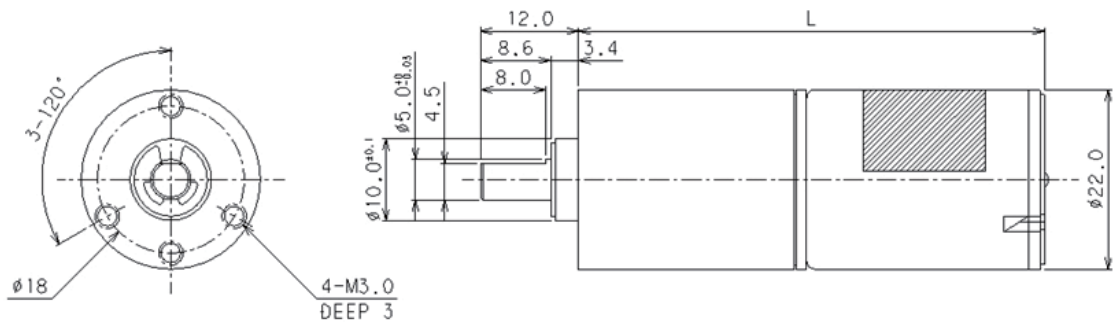
TE22BH-24

- Think Engineering Corp (JAPAN)
- Rated voltage: 24V
- Reduction ratio : 1/4~1/1296 (14 kinds)
- Rated torque : 0.24 ~ 6.00 Kgf-cm



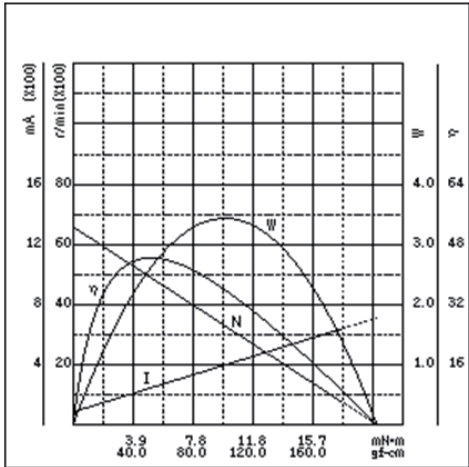
SPECIFICATION

Dimension



Geared Motor

Product name	Rated voltage (V)	Rated current (mA)	Rated speed (RPM)	Rated torque (Kgf.cm)	No load current (mA)	No load speed (RPM)	Machanical torque moment (Kgf.cm)	Watt(W)	Length(mm)	weight(g)
TE-22BH-24-4	24V	450	998.1	0.24	130	1577.7	0.5	2.46	47.5	78.5
TE-22BH-24-6	24V	450	665.4	0.36	130	1051.8	0.5	2.46	47.5	78.5
TE-22BH-24-16	24V	450	249.5	0.96	130	394.4	1	2.46	52.5	88
TE-22BH-24-24	24V	450	166.3	1.44	130	263	1	2.46	52.5	88
TE-22BH-24-36	24V	450	110.9	2.16	130	175.3	2	2.46	52.5	88
TE-22BH-24-64	24V	450	62.4	3.84	130	98.6	3	2.46	57.5	97
TE-22BH-24-96	24V	450	41.6	5.76	130	65.7	4.5	2.46	57.5	97
TE-22BH-24-144	24V	360	31.3	6	130	43.8	7	1.93	57.5	97
TE-22BH-24-216	24V	280	22.7	6	130	29.2	9	1.4	57.5	97
TE-22BH-24-256	24V	260	19.6	6	130	24.7	9	1.21	62.5	106
TE-22BH-24-384	24V	220	13.6	6	130	16.4	9	0.84	62.5	106
TE-22BH-24-576	24V	200	9.3	6	130	11	9	0.58	62.5	106
TE-22BH-24-864	24V	180	6.3	6	130	7.3	9	0.39	62.5	106
TE-22BH-24-1296	24V	170	4.3	6	130	4.9	9	0.26	62.5	106



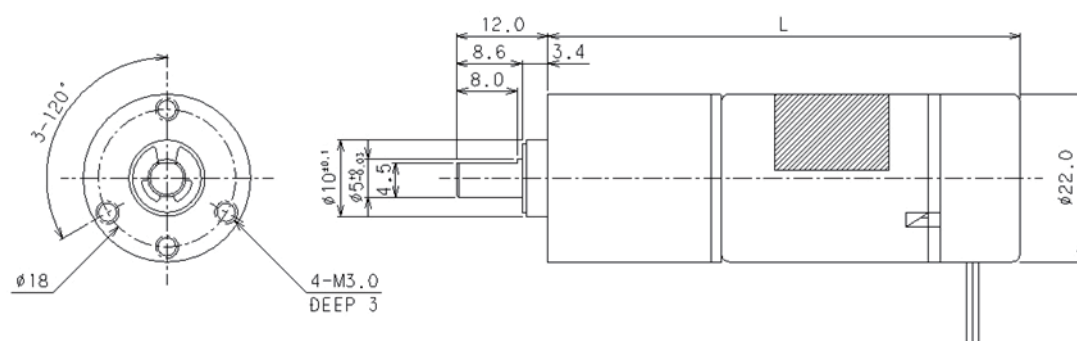
TE22BK-24

- Think Engineering Corp (JAPAN)
- Driver built-in
- Rated voltage: 24V
- Reduction ratio : 1/4~1/1296 (14 kinds)
- Rated torque : 0.24 ~ 6.00 Kgf-cm



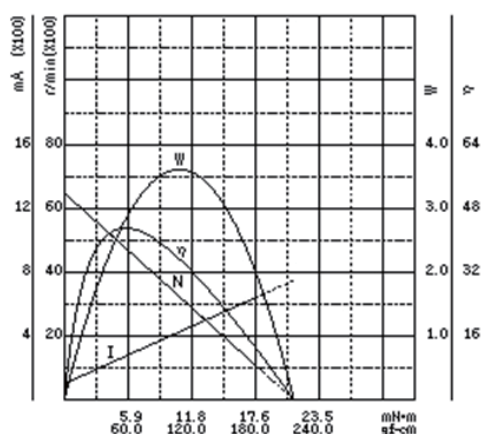
SPECIFICATION

Dimension



Geared Motor

Product name	Rated voltage (V)	Rated current (mA)	Rated speed (RPM)	Rated torque (Kgf.cm)	No load current (mA)	No load speed (RPM)	Machanical torque moment (Kgf.cm)	Watt(W)	Length(mm)	weight(g)
TE-22BK-24-4	24V	450	1060.8	0.24	160	1611.3	0.5	2.61	56.5	80
TE-22BK-24-6	24V	450	707.2	0.36	160	1074.2	0.5	2.61	56.5	80
TE-22BK-24-16	24V	450	265.2	0.96	160	402.8	1	2.61	62	90
TE-22BK-24-24	24V	450	176.8	1.44	160	268.6	1.5	2.61	62	90
TE-22BK-24-36	24V	450	117.9	2.16	160	179	2	2.61	62	90
TE-22BK-24-64	24V	450	66.3	3.84	160	100.7	3	2.61	67	100
TE-22BK-24-96	24V	450	44.2	5.76	160	67.1	4.5	2.61	67	100
TE-22BK-24-144	24V	365	32.9	6	160	44.8	7	2.03	67	100
TE-22BK-24-216	24V	300	23.7	6	160	29.8	9	1.46	67	100
TE-22BK-24-256	24V	275	20.4	6	160	25.2	9	1.26	72.5	110
TE-22BK-24-384	24V	235	14.2	6	160	16.8	9	0.88	72.5	110
TE-22BK-24-576	24V	210	9.7	6	160	11.2	9	0.6	72.5	110
TE-22BK-24-864	24V	195	6.6	6	160	7.5	9	0.41	72.5	110
TE-22BK-24-1296	24V	185	4.4	6	160	5	9	0.27	72.5	110



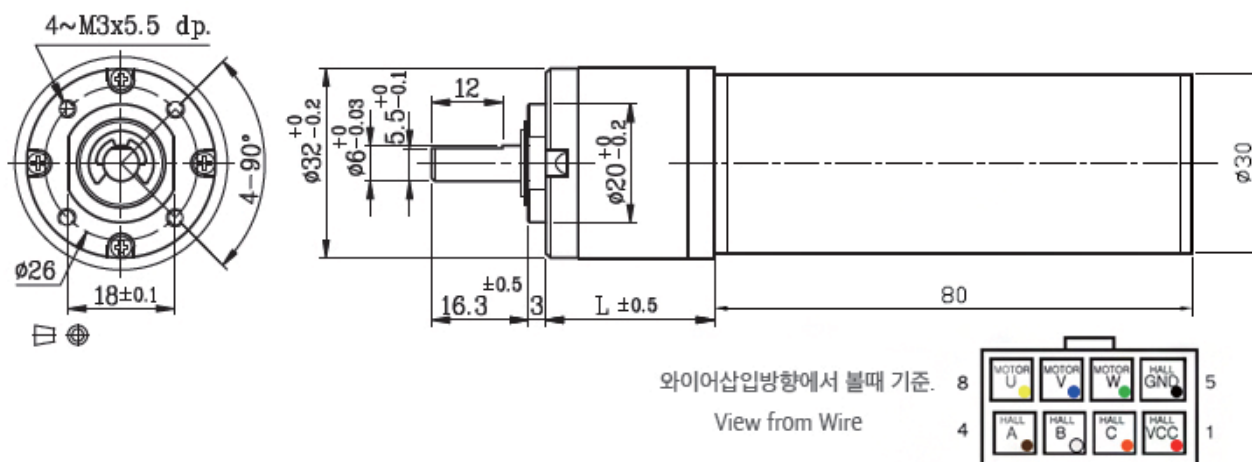
BL3080 WITH IG-32

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10°C ~ +60°C



SPECIFICATION

Dimension



핀번호	1	2	3	4	5	6	7	8
신호명	Vcc	Hall_C(W)	Hall_B(V)	Hall_A(U)	GND	W	V	U
설명	센서전원	센서전원	센서전원	센서전원	Ground	모터전원	모터전원	모터전원

Geared Motor

감속기 길이 (mm) Gear Head L	22.1	28.5			34.9				41.3			
중량(g)	391	411			436				462			
감속비 Reduction ratio	1/5	1/14	1/19	1/27	1/51	1/71	1/100	1/139	1/189	1/264	1/516	1/721
BL3080 24V	Rated Torque(Kgf.cm)	2	4	4	6	8	8	10	10	12	12	12
	Rated Speed(RPM)	2700	964	710	500	264	190	135	97	71	51	26
	No Load Speed(RPM)	3000	1071	789	555	294	211	150	107	79	56	29

Motor

BL3080-24V MOTOR(DC 24V)		
정격 토크 Rated torque	600	(gf-cm)
정격 회전수 Rated speed	13,500	(RPM)
정격 전류 Rated current	3.81	(mA)
무부하 회전수 No load speed	15,000	(RPM)
무부하 전류 No load current	0.65	(mA)
정격 출력 Rated output	83	(W)

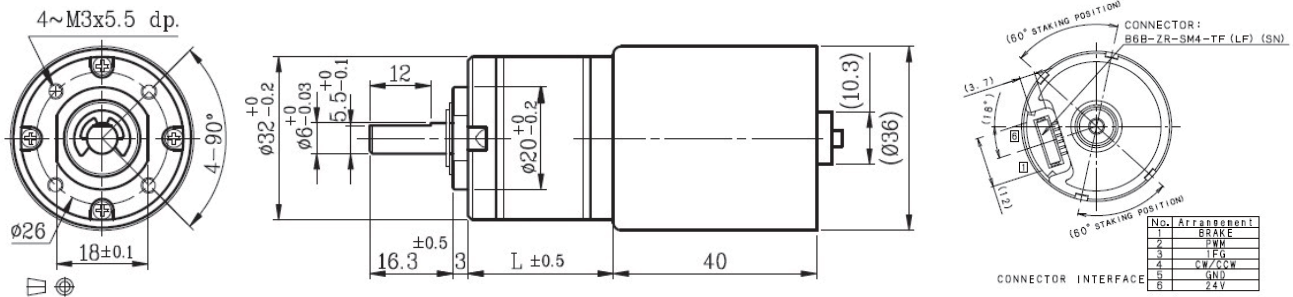
BL3640A-12/24V-06P WITH IG-32

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10°C ~ +60°C



SPECIFICATION

Dimension



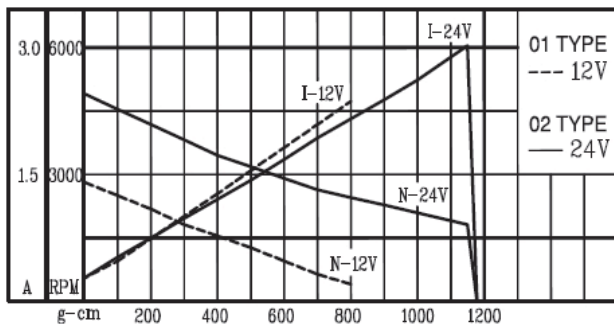
Geared Motor

감속기 길이 (mm) Gear Head L		22.1				28.5				34.9				41.3			
중량(g)		254				287				321				355			
감속비 Reduction ratio		1/5	1/14	1/19	1/27	1/51	1/71	1/100	1/139	1/189	1/264	1/516	1/721				
BL3640 12V	Rated Torque (Kgf.cm)	1	2.5	3.3	4.7	7.7	8	10	10	12	12	12	12				
	Rated Speed (RPM)	700	250	184	130	69	49	35	25	19	13	7	5				
	No Load Speed (RPM)	1000	357	263	185	98	70	50	36	26	19	10	7				
BL3640 24V	Rated Torque (Kgf.cm)	1	2.4	3.3	4.7	7.6	8	10	10	12	12	12	12				
	Rated Speed (RPM)	780	279	205	144	76	55	39	28	21	15	8	5				
	No Load Speed (RPM)	1000	357	263	185	98	70	50	36	26	19	10	7				

Motor

BL3640-12V MOTOR(DC 12V)		
정격 토크 Rated torque	250	(gf-cm)
정격 회전수 Rated speed	3,500	(RPM)
정격 전류 Rated current	1,600	(mA)
무부하 회전수 No load speed	5,000	(RPM)
무부하 전류 No load current	750	(mA)
정격 출력 Rated output	8.75	(W)

BL3640-24V MOTOR(DC 24V)		
정격 토크 Rated torque	250	(gf-cm)
정격 회전수 Rated speed	3,900	(RPM)
정격 전류 Rated current	900	(mA)
무부하 회전수 No load speed	5,000	(RPM)
무부하 전류 No load current	360	(mA)
정격 출력 Rated output	10	(W)



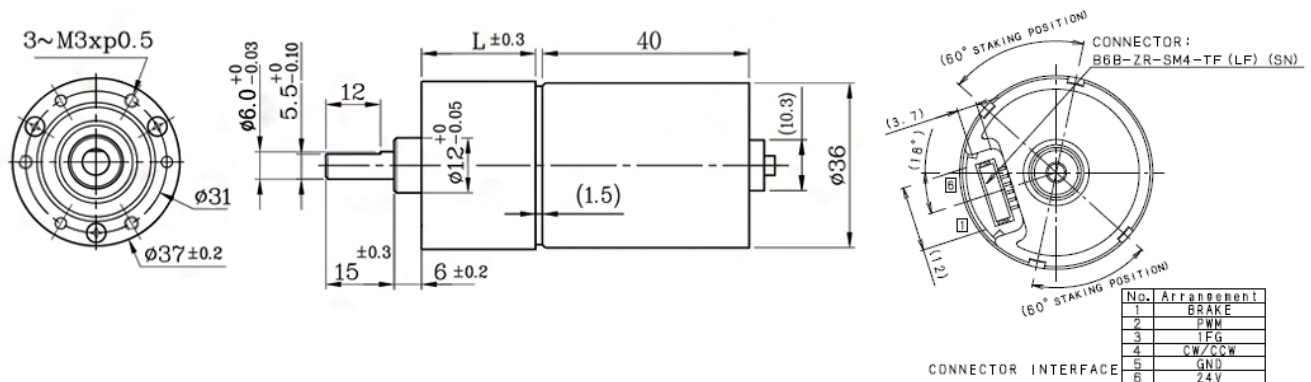
BL3640A-12/24V-06P WITH RA35

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10°C ~ +60°C



SPECIFICATION

■ Dimension

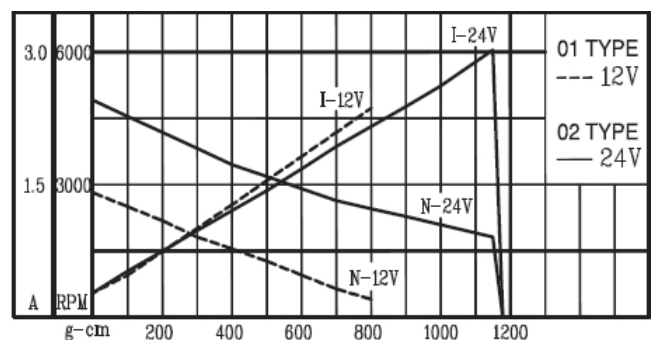


■ Geared Motor

감속기 길이 (mm) Gear Head L		21.8	24.6	27.1	29.6					32.1					34.5				
종량(g)		247	253	259	267					271					278				
감속비 Reduction ratio		1/6	1/16	1/21	1/31	1/56	1/75	1/104	1/125	1/156	1/188	1/219	1/250	1/312	1/469	1/625	1/750	1/938	1/1875
BL3640 12V	Rated Torque (Kgf.cm)	0.97	2	2	3	4	5	5	6	6	6	6	6	6	6	6	6	6	6
	Rated Speed (RPM)	583	219	167	113	63	47	34	28	22	19	16	14	11	7	6	5	4	2
	No Load Speed (RPM)	833	313	238	161	89	67	48	40	32	27	23	20	16	11	8	7	5	3
BL3640 24V	Rated Torque (Kgf.cm)	0.97	2	2	3	4	5	5	6	6	6	6	6	6	6	6	6	6	6
	Rated Speed (RPM)	650	244	186	126	70	52	38	31	25	21	18	16	13	8	6	5	4	2
	No Load Speed (RPM)	833	313	238	161	89	67	48	40	32	27	23	20	16	11	8	7	5	3

■ Motor

BL3640-12V MOTOR(DC 12V)		
정격 토크 Rated torque	250	(gf-cm)
정격 회전수 Rated speed	3,500	(RPM)
정격 전류 Rated current	1,600	(mA)
무부하 회전수 No load speed	5,000	(RPM)
무부하 전류 No load current	750	(mA)
정격 출력 Rated output	8.75	(W)
BL3640-24V MOTOR(DC 24V)		
정격 토크 Rated torque	250	(gf-cm)
정격 회전수 Rated speed	3,900	(RPM)
정격 전류 Rated current	900	(mA)
무부하 회전수 No load speed	5,000	(RPM)
무부하 전류 No load current	360	(mA)
정격 출력 Rated output	10	(W)



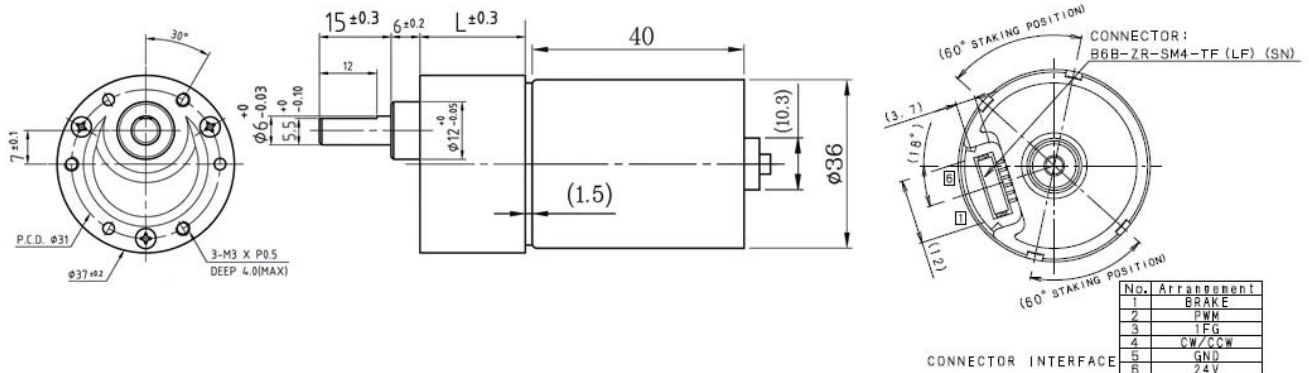
BL3640A-12/24V-06P WITH RB35

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10°C ~ +60°C



SPECIFICATION

Dimension



Geared Motor

감속기 길이 (mm) Gear Head L		19.5		22		24.5				27						29.5				32		
중량(g)		236		243		250				256						262				270		
감속비 Reduction ratio		1/6	1/10	1/18	1/30	1/50	1/60	1/75	1/90	1/100	1/120	1/150	1/180	1/200	1/250	1/300	1/500	1/600	1/750	1/1000	1/1500	1/3000
BL3640 12V	Rated Torque (Kgf.cm)	1	1	1	2	3	3	4	4	6	6	6	6	6	6	6	6	6	6	6	6	6
	Rated Speed (RPM)	583	350	194	117	70	58	47	39	35	29	23	19	18	14	12	7	6	5	4	2	1
	No Load Speed (RPM)	833	500	278	167	100	83	67	56	50	42	33	28	25	20	17	10	8	7	5	3	2
BL3640 24V	Rated Torque (Kgf.cm)	1	1	1	2	3	3	4	4	6	6	6	6	6	6	6	6	6	6	6	6	6
	Rated Speed (RPM)	650	390	217	130	78	65	52	43	39	33	26	22	20	16	13	8	7	5	4	3	1
	No Load Speed (RPM)	833	500	277	166	100	83.3	66.6	55.5	50	41.6	33.3	27.7	25	20	16.6	10	8.3	6.6	5	3.3	1.6

Motor

BL3640-12V MOTOR(DC 12V)		
정격 토크 Rated torque	250	(gf-cm)
정격 회전수 Rated speed	3,500	(RPM)
정격 전류 Rated current	1,600	(mA)
무부하 회전수 No load speed	5,000	(RPM)
무부하 전류 No load current	750	(mA)
정격 출력 Rated output	8.75	(W)
BL3640-24V MOTOR(DC 24V)		
정격 토크 Rated torque	250	(gf-cm)
정격 회전수 Rated speed	3,900	(RPM)
정격 전류 Rated current	900	(mA)
무부하 회전수 No load speed	5,000	(RPM)
무부하 전류 No load current	360	(mA)
정격 출력 Rated output	10	(W)

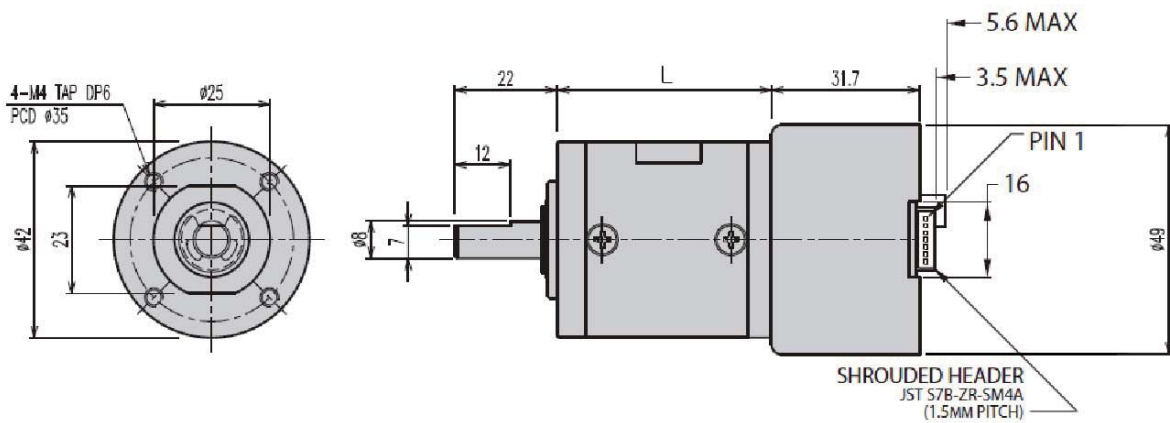
BL4932A-12/24V-07P WITH IG42

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10℃ ~ +60℃



SPECIFICATION

■ Dimension

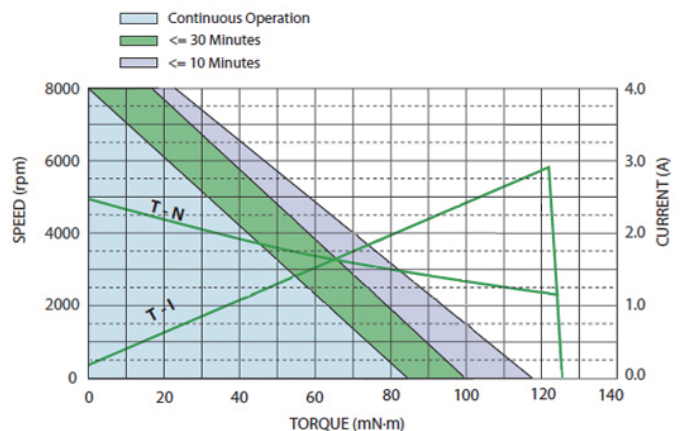


■ Geared Motor

감속기 길이 (mm) Gear Head L		32.5		39.2		45.9				52.6						59.3							
중량(g)		351		403		443				493						538							
감속비 Reduction ratio		1/4		1/14	1/17	1/24	1/49	1/61	1/84	1/104	1/144	1/212	1/263	1/294	1/504	1/624	1/720	1/864	1/1062	1/1470	1/2500	1/3000	1/3600
BL4932 24V	Rated Torque (Kgf.cm)	1.2	3.7	4.5	6.4	11	14	18	20	20	25	25	25	30	30	30	30	30	30	30	30	30	30
	Rated Speed (RPM)	950	271	223.5	158.3	77.5	62.2	45.2	36.5	26.3	17.9	14.4	12.9	7.5	6	5.2	4.3	3.5	2.5	1.5	1.2	1	
	No Load Speed (RPM)	1250	357.1	294.1	208.3	102	81.9	59.5	48	34.7	23.5	19	17	9.9	8	6.9	5.7	4.7	3.4	2	1.6	1.3	

■ Motor

BL4932-24V MOTOR(DC 24V)		
정격 토크 Rated torque	385	(gf-cm)
정격 회전수 Rated speed	3,800	(RPM)
정격 전류 Rated current	1,000	(mA)
무부하 회전수 No load speed	5,000	(RPM)
무부하 전류 No load current	500	(mA)
정격 출력 Rated output	17.5	(W)



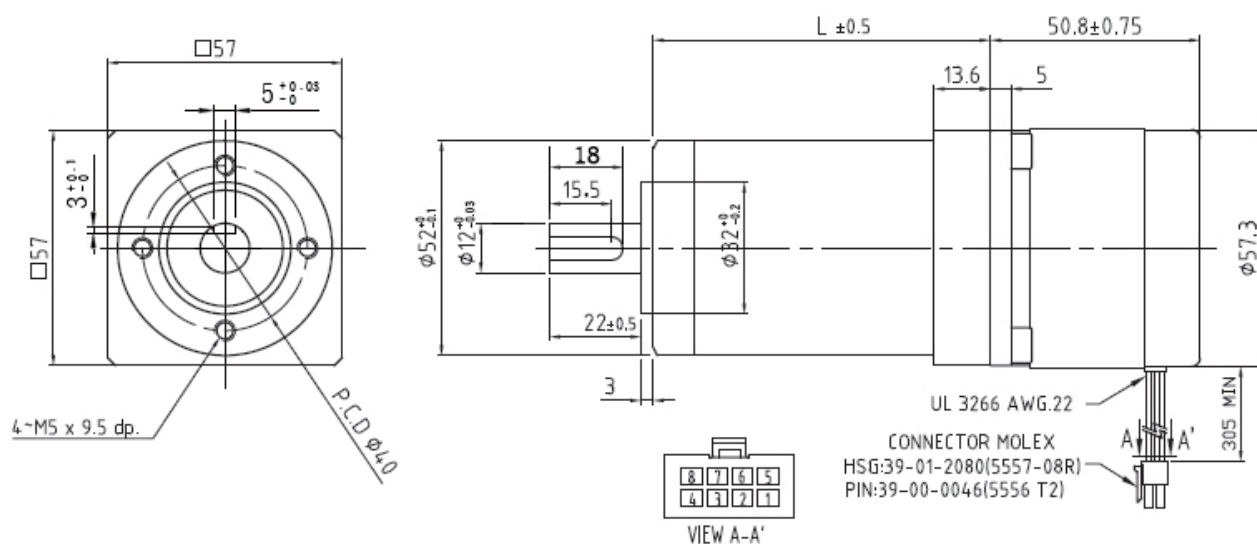
BL5057-50W IG52

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10℃ ~ +60℃



SPECIFICATION

Dimension



핀 번호	1	2	3	4	5	6	7	8
신호명	Vcc	Hall_C(W)	Hall_B(V)	Hall_A(U)	GND	W	V	U
설명	센서전원	센서전원	센서전원	센서전원	Ground	모터전원	모터전원	모터전원

Geared Motor

감속기 길이 (mm) Gear Head L		60.6		76.1					91.6						107.1						
중량(g)		1158		1343					1533						1703						
감속비 Reduction ratio		1/3	1/4	1/12	1/15	1/19	1/21	1/26	1/43	1/53	1/66	1/81	1/100	1/113	1/126	1/150	1/230	1/285	1/353	1/488	1/546
5057-50W 24V	정격토크(kgf·cm) Rated torque	4.6	6.2	16.2	20.3	25.7	28.4	35.1	49.8	61.4	76.4	93.8	100	100	100	100	100	100	100	100	100
	정격 회전수(RPM) Rated speed	900	675	225	180	142	129	104	63	51	41	33	27	24	21	18	12	9	8	6	5
	무부하 회전수(RPM) No Load speed	1467	1100	367	293	232	210	169	102	83	67	54	44	39	35	29	19	15	12	9	8

감속기 길이 (mm) Gear Head L	107.1																			
중량(g)	1703																			
감속비 Reduction ratio	1/676	1/756	1/936																	
5057-50W 24V																				
정격토크(kgf·cm) Rated torque	100	100	100																	
정격 회전수(RPM) Rated speed	4	4	3																	
무부하 회전수(RPM) No Load speed	7	6	5																	

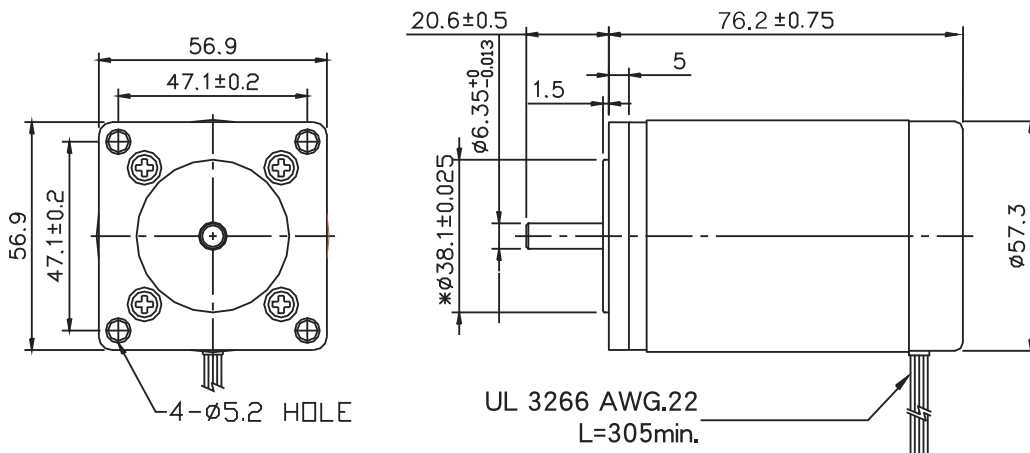
BL7657-80W

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10°C ~ +60°C



SPECIFICATION

■ Dimension



■ Motor

PERFORMANCE DATA				
PARAMETER	SYMBOL	UNITS	VALUE	TOLERANCE
RATED VOLTAGE	V	VOLTS	24	Normal
NO LOAD SPEED	S _N	RPM	3700	±10%
RATED TORQUE	T _c	Kg-cm	2.85	Normal
RATED SPEED	S _c	RPM	2740	±10%
RATED CURRENT	I _c	AMP	5.5	±10%
RATED POWER	P _{out}	W	80	Normal
PEAK TORQUE	T _P	Kg-cm	10.8	Min
PEAK CURRENT	I _P	AMP	18.5	Max
VOLTAGE CONSTANT	K _E	V/rad/sec	0.06	±10%
RESISTANCE	R	OHM	0.8	±10%
INERTIA	J _M	g-cm ²	330	±10%
WEIGHT	W	K g	1.1	Max
AMBIENT TEMPERATURE	T	° C	-10 ~ +60	TYP

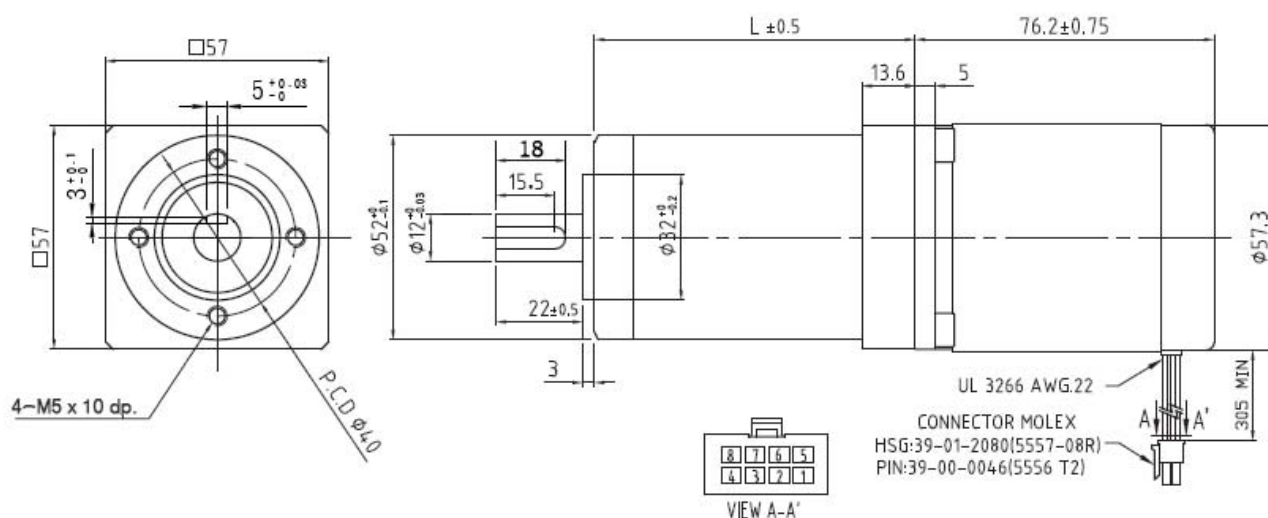
BL7657-80W IG52

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10°C ~ +60°C



SPECIFICATION

Dimension



핀 번호	1	2	3	4	5	6	7	8
신호명	Vcc	Hall_C(W)	Hall_B(V)	Hall_A(U)	GND	W	V	U
설명	센서전원	센서전원	센서전원	센서전원	Ground	모터전원	모터전원	모터전원

Geared Motor

감속기 길이 (mm) Gear Head L	60,6		76,1						91,6						107,1					
중량(g)	1587		1772						1962						2132					
감속비 Reduction ratio	1/3	1/4	1/12	1/15	1/19	1/21	1/26	1/43	1/53	1/66	1/81	1/100	1/113	1/126	1/150	1/230	1/285	1/353	1/488	1/546
7657- 80W 24V	정격토크(kgf·cm) Rated torque	6,8	9,1	23,9	29,9	37,9	41,9	51,8	73,5	90,6	100	100	100	100	100	100	100	100	100	100
	정격 회전수(RPM) Rated speed	913	685	228	183	144	130	105	64	51,7	41,5	33,8	27,4	24,2	21,7	18,3	11,9	9,6	7,8	5,6
	무부하 회전수(RPM) No Load speed	1233	925	308	246	194	176	142	86	69,8	56	45,7	37	32,7	29,4	24,7	16,1	13	10,5	7,6

감속기 길이 (mm) Gear Head L	107,1																		
중량(g)	2132																		
감속비 Reduction ratio	1/676	1/756	1/936																
7657- 80W 24V	정격토크(kgf·cm) Rated torque	100	100	100															
	정격 회전수(RPM) Rated speed	4,1	3,6	2,9															
	무부하 회전수(RPM) No Load speed	5,5	4,9	4															

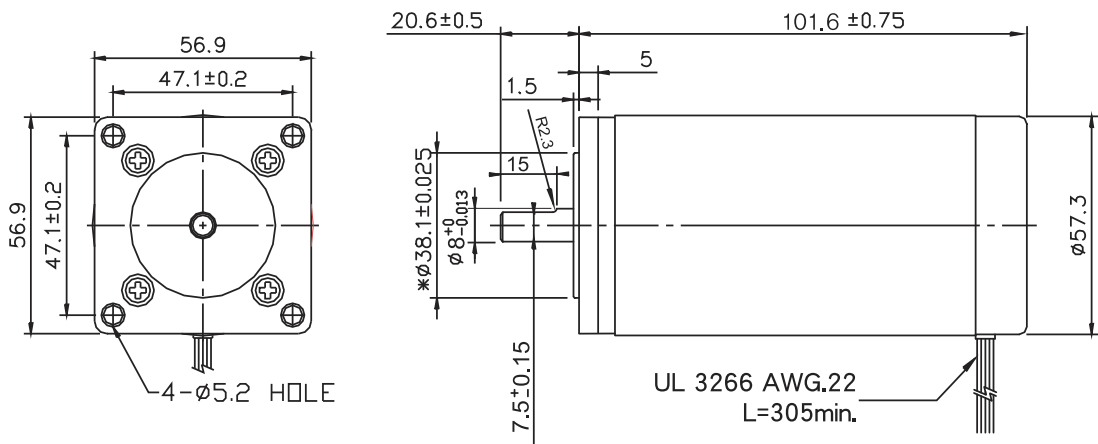
BL10057-110W

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10℃ ~ +60℃



SPECIFICATION

■ Dimension



■ Motor

PERFORMANCE DATA				
PARAMETER	SYMBOL	UNITS	VALUE	TOLERANCE
RATED VOLTAGE	V	VOLTS	24	Normal
NO LOAD SPEED	S _N	RPM	3600	±10%
RATED TORQUE	T _c	Kg-cm	3.77	Normal
RATED SPEED	S _c	RPM	2800	±10%
RATED CURRENT	I _c	AMP	6.5	± 10%
RATED POWER	P _{out}	W	110	Normal
PEAK TORQUE	T _P	Kg-cm	13.66	M in
PEAK CURRENT	I _P	AMP	25.3	Max
VOLTAGE CONSTANT	K _E	V/rad/sec	0.063	±10%
RESISTANCE	R	OHM	0.44	±10%
INERTIA	J _M	g-cm ²	500	±10%
WEIGHT	W	K g	1.5	Max
AMBIENT TEMPERATURE	T	° C	-10 ~ +60	TYP

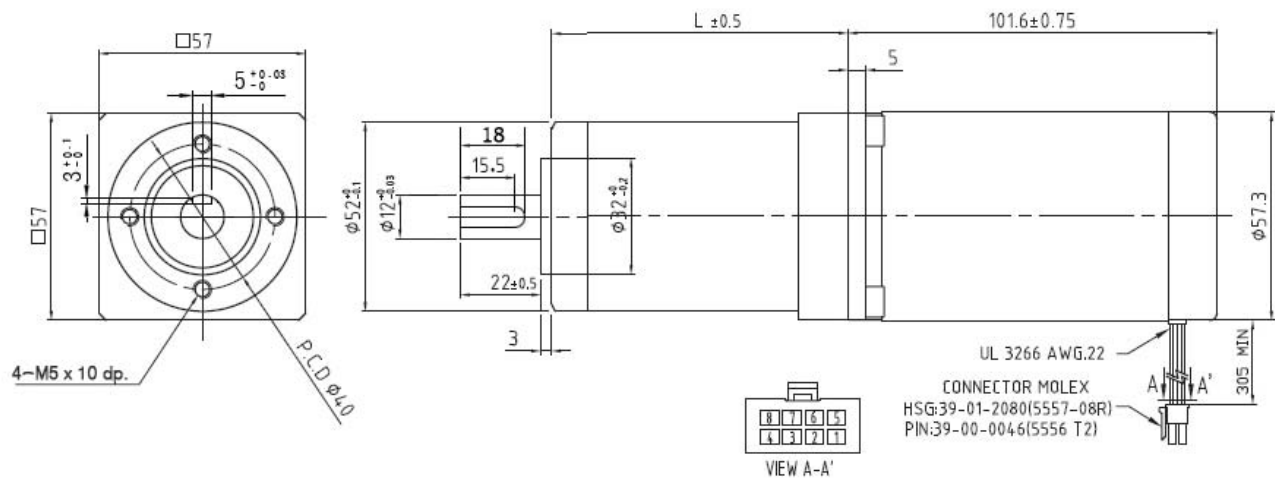
BL10057-1 10W IG52

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10℃ ~ +60℃



SPECIFICATION

Dimension



핀 번호	1	2	3	4	5	6	7	8
신호명	Vcc	Hall_C(W)	Hall_B(V)	Hall_A(U)	GND	W	V	U
설명	센서전원	센서전원	센서전원	센서전원	Ground	모터전원	모터전원	모터전원

Geared Motor

감속기 길이 (mm) Gear Head L	60,6		76,1						91,6						107,1					
중량(g)	2038		2223						2413						2583					
감속비 Reduction ratio	1/3	1/4	1/12	1/15	1/19	1/21	1/26	1/43	1/53	1/66	1/81	1/100	1/113	1/126	1/150	1/230	1/285	1/353	1/488	1/546
10057-110W 24V	정격토크(kgf·cm) Rated torque	9,0	12,1	31,7	39,6	50,1	55,4	68,6	97,3	100	100	100	100	100	100	100	100	100	100	100
	정격 회전수(RPM) Rated speed	933	700	233	186	147	133	107	65	52,8	42,4	34,5	28	24,7	22,2	18,6	12,2	9,8	7,9	5,7
	무부하 회전수(RPM) No Load speed	1200	900	300	240	189	171	138	84	68	54,5	44,4	36	31,8	28,5	24	15,6	12,6	10,2	7,4

감속기 길이 (mm) Gear Head L	107,1																		
중량(g)	2583																		
감속비 Reduction ratio	1/676	1/756	1/936																
10057-110W 24V	정격토크(kgf·cm) Rated torque	100	100	100															
	정격 회전수(RPM) Rated speed	4,1	3,7	2,9															
	무부하 회전수(RPM) No Load speed	5,3	4,7	3,8															

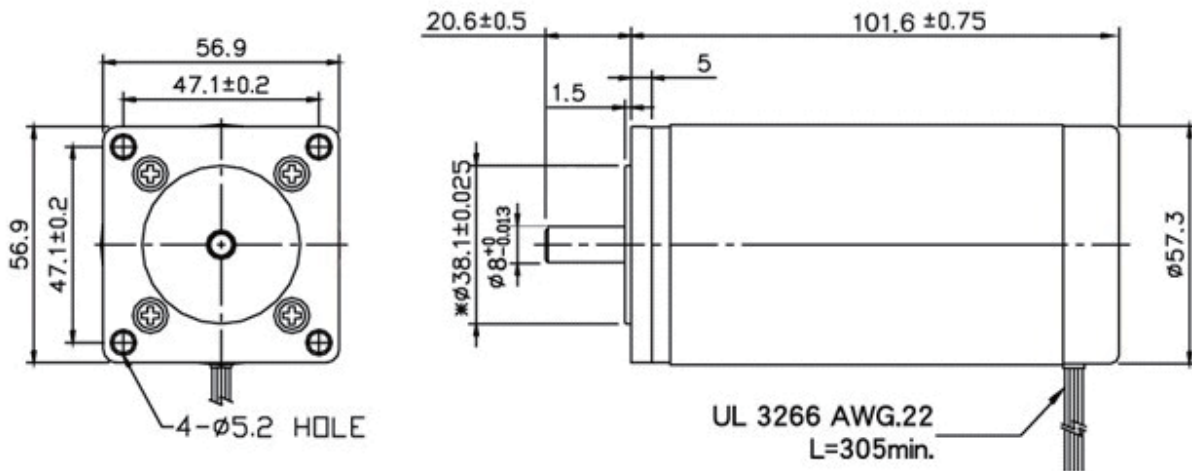
BL10057-180W

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10℃ ~ +60℃



SPECIFICATION

■ Dimension



■ Motor

BL10057-180W MOTOR(DC 24V)				
PARAMETER	SYMBOL	UNITS	VALUE	TOLERANCE
RATED VOLTAGE	V	VOLTS	24	Normal
NO LOAD SPEED	SNL	RPM	6900	±10%
RATED TORQUE	TC	Kg-cm	3.57	Normal
RATED SPEED	SC	RPM	5150	±10%
RATED CURRENT	IC	AMP	10	±10%
RATED POWER	Pout	W	180	Normal
PEAK TORQUE	TP	Kg-cm	13.66	Min
PEAK CURRENT	IP	AMP	29	Max
VOLTAGE CONSTANT	KE	V/rad/sec	0.033	±10%
RESISTANCE	R	OHM	0.2	±10%
INERTIA	JM	g-cm ²	500	±10%
WEIGHT	W	Kg	1.5	Max
AMBENT TEMPERATURE	T	℃	-10~+60	TYP

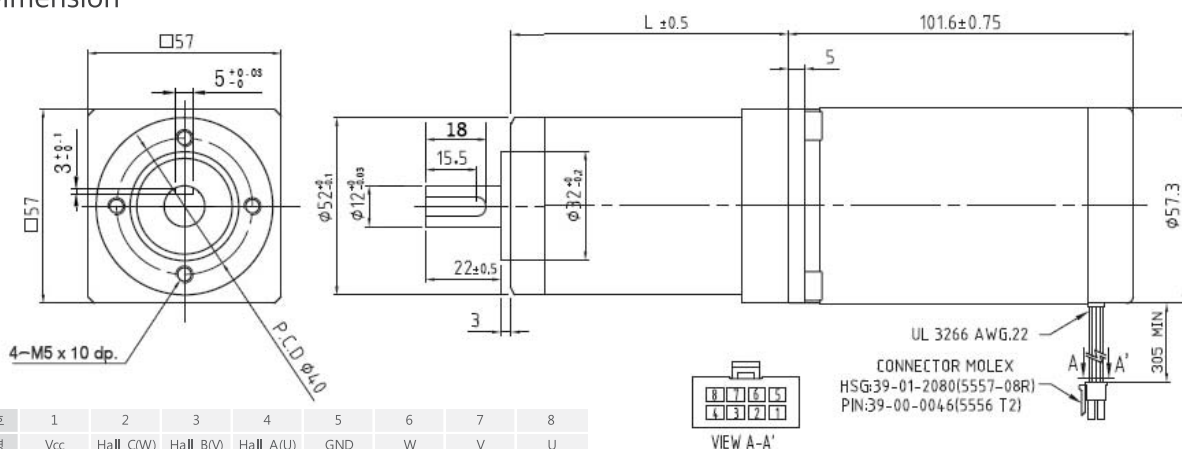
BL10057-180W IG52

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10℃ ~ +60℃



SPECIFICATION

Dimension



핀번호	1	2	3	4	5	6	7	8
신호명	Vcc	Hall_C(W)	Hall_B(V)	Hall_A(U)	GND	W	V	U
설명	센서전원	센서전원	센서전원	센서전원	Ground	모터전원	모터전원	모터전원

Geared Motor

감속기 길이 (mm) Gear Head L		60.6		76.1				91.6						107.1										
중량(g)		2038		2223				2413						2583										
감속비 Reduction ratio		1/3	1/4	1/12	1/15	1/19	1/21	1/26	1/43	1/53	1/66	1/81	1/100	1/113	1/126	1/150	1/230	1/285	1/353	1/488	1/546	1/676	1/756	1/936
10057 180W	Rated Torque (Kgf.cm)	8.5	11.4	29.9	37.4	47.4	50	50	92.1	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Rated Speed (RPM)	1716	1287	429	343	271	245	198	119	97.1	78	63.5	51.5	45.5	40.8	34.3	22.3	18	14.5	10.5	9.4	7.6	6.8	5.5
	No Load Speed (RPM)	2300	1725	575	460	363	328	265	160	130	104	85.1	69	61	54.7	46	30	24.2	19.5	14.1	12.6	10.2	9.1	7.3

Motor

BL10057-180W MOTOR(DC 24V)				
PARAMETER	SYMBOL	UNITS	VALUE	TOLERANCE
RATED VOLTAGE	V	VOLTS	24	Normal
NO LOAD SPEED	SNL	RPM	6900	±10%
RATED TORQUE	TC	Kg-cm	3.57	Normal
RATED SPEED	SC	RPM	5150	±10%
RATED CURRENT	IC	AMP	10	±10%
RATED POWER	Pout	W	180	Normal
PEAK TORQUE	TP	Kg-cm	13.66	Min
PEAK CURRENT	IP	AMP	29	Max
VOLTAGE CONSTANT	KE	V/rad/sec	0.033	±10%
RESISTANCE	R	OHM	0.2	±10%
INERTIA	JM	g-cm ²	500	±10%
WEIGHT	W	Kg	1.5	Max
AMBENT TEMPERATURE	T	℃	-10~+60	TYP

4

STEPPING MOTOR SERIES

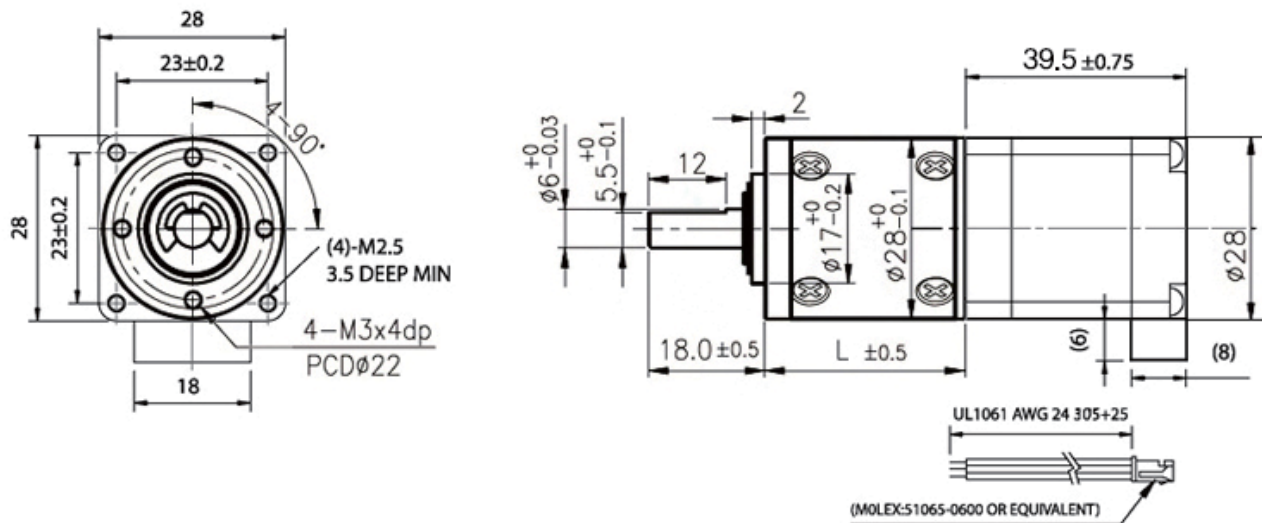
DSM28WM61A IG28

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10°C ~ +60°C
 - Step angle: 1.8°
 - Rated voltage: 3.4(VDC)
 - Rated current: 0.95A
 - Holding torque : 760 gf-cm
 - Winding resistance: 3.4Ω ±



SPECIFICATION

■ Dimension



■ Geared Motor

DSM28WM61A + IG28	감속기 길이(mm) Gear Head L	24.5		30.9				37.3				43.7				
	감속비 Reduction Ratio	1/4	1/5	1/14	1/19	1/27	1/35	1/51	1/71	1/100	1/139	1/189	1/264	1/516	1/721	1/939
	정격토크(Kgf-cm) Rated Torque	2	2	3	3	4	4	6	6	8	8	10	10	10	10	10

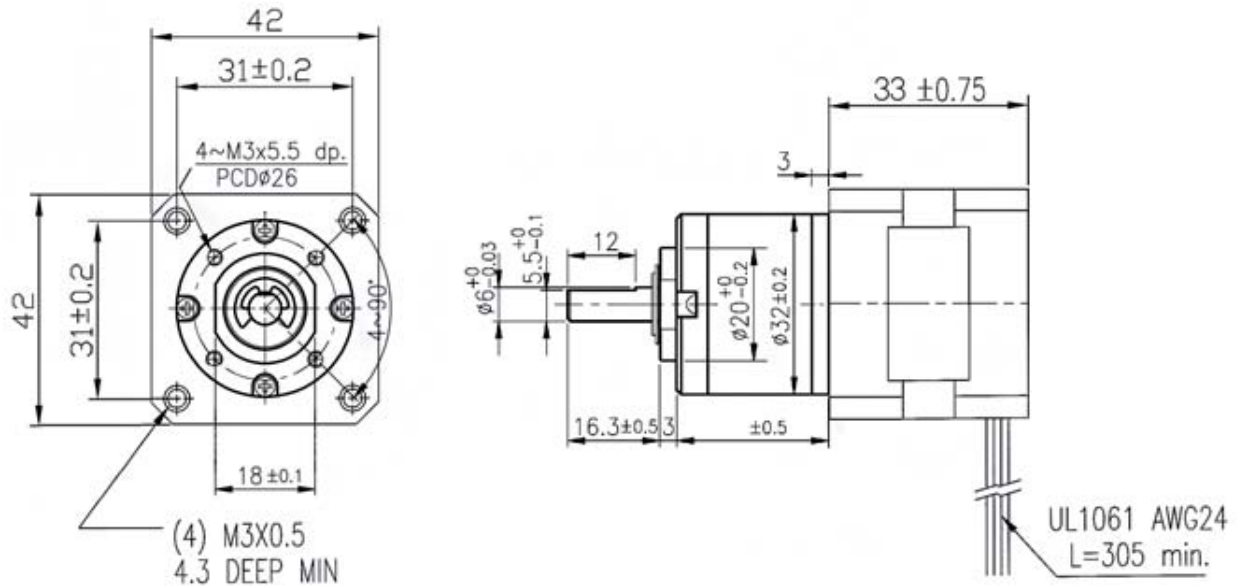
DSM42WS61A IG32

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$
 - Step angle: 1.8°
 - Rated voltage: DC 4V
 - Rated current: 0.95A
 - Holding torque : 1600 gf-cm
 - Winding resistance: $4.2\Omega \pm 10\%$
 - Inductance: $2.5\text{mH} \pm 20\%$
 - Motor weight: 200g



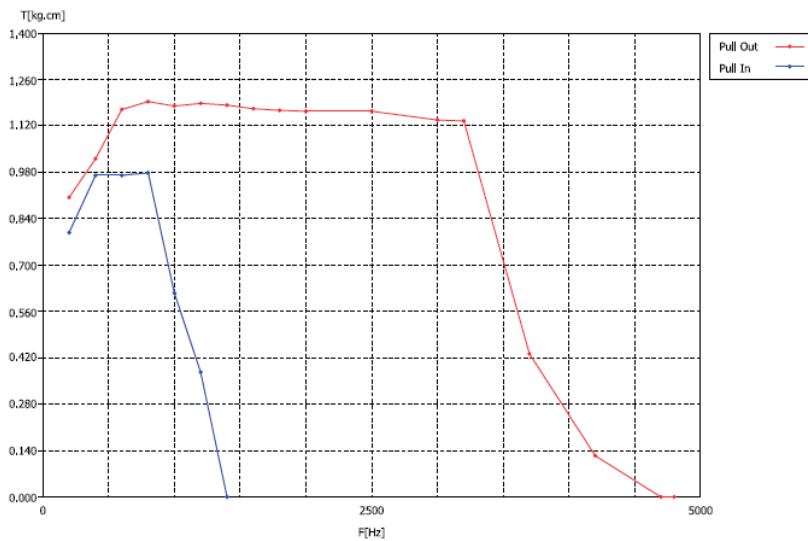
SPECIFICATION

■ Dimension



■ Geared Motor

감속기 길이 (mm) Gear Head L	20.6	27				33.4				39.8		
중량(g)	102	122				147				173		
감속비 Reduction ratio	1/5	1/14	1/19	1/27	1/51	1/71	1/100	1/139	1/189	1/264	1/516	1/721
Rated Torque(Kgf.cm)	2	4	4	6	8	8	10	10	12	12	12	12



DSM42WM61A IG32

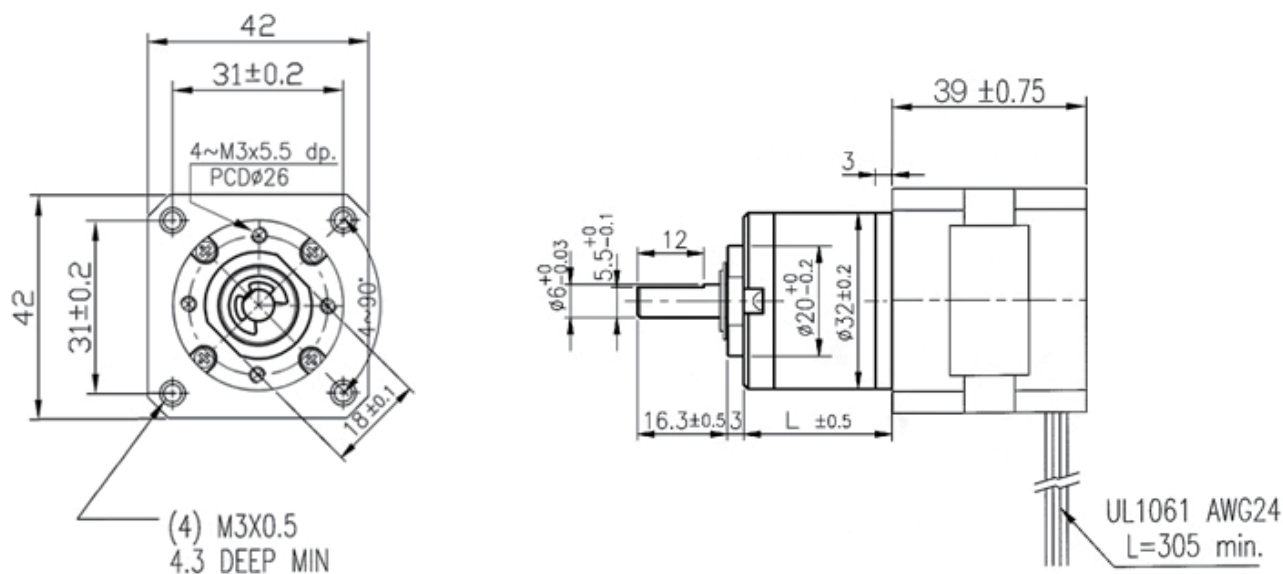
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10°C ~ +60°C

- Step angle: 1.8°
- Rated voltage: DC 4V
- Rated current: 1.2A
- Holding torque : 2600 gf-cm
- Winding resistance: $3.3\Omega \pm 10\%$
- Inductance: $3.2\text{mH} \pm 20\%$
- Motor weight: 250g



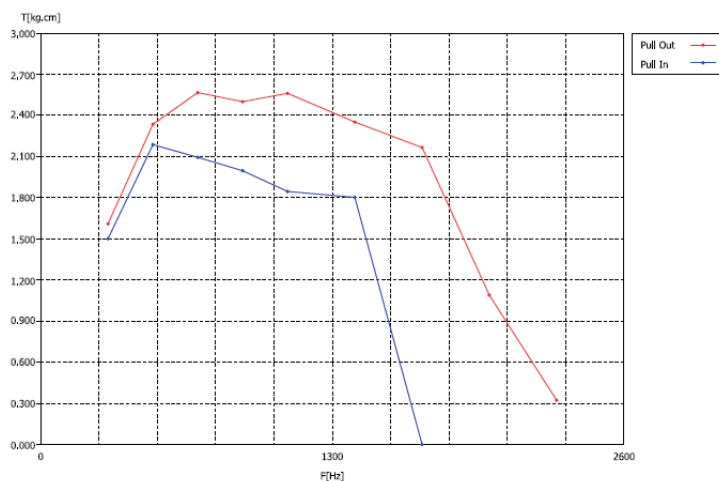
SPECIFICATION

Dimension



Geared Motor

감속기 길이 (mm) Gear Head L	20.6	27			33.4				39.8			
중량(g)	102	122			147				173			
감속비 Reduction ratio	1/5	1/14	1/19	1/27	1/51	1/71	1/100	1/139	1/189	1/264	1/516	1/721
Rated Torque(Kgf.cm)	2	4	4	6	8	8	10	10	12	12	12	12



DSM42WS63A IG32

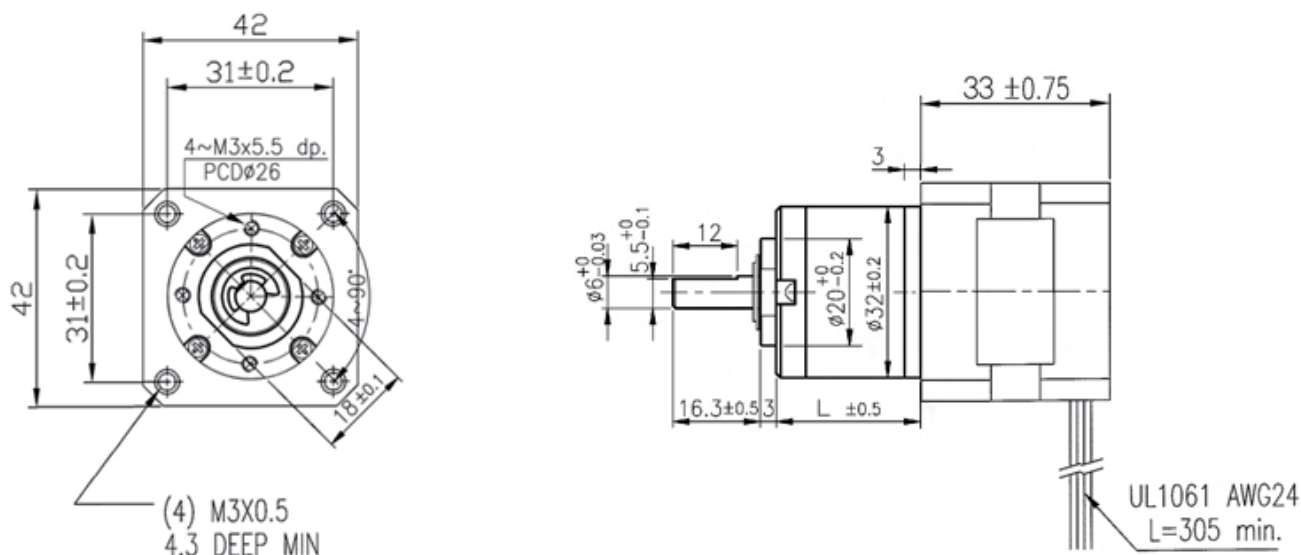
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10℃ ~ +60℃

- Step angle: 1.8°
- Rated voltage: 12(VDC)
- Rated current: 0.31A
- Holding torque : 1600 gf-cm
- Winding resistance: $3.85\Omega \pm 10\%$
- Inductance: 23mH $\pm 20\%$
- Motor weight: 200g



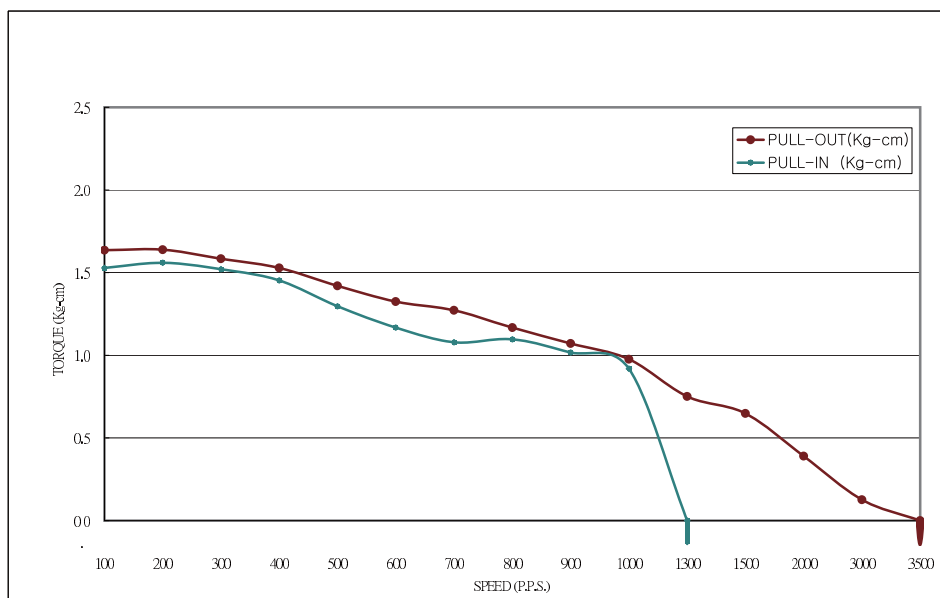
SPECIFICATION

Dimension



Geared Motor

감속기 길이 (mm) Gear Head L	20.6	27	33.4				39.8					
중량(g)	102	122	147				173					
감속비 Reduction ratio	1/5	1/14	1/19	1/27	1/51	1/71	1/100	1/139	1/189	1/264	1/516	1/721
Rated Torque(Kgf.cm)	2	4	4	6	8	8	10	10	12	12	12	12



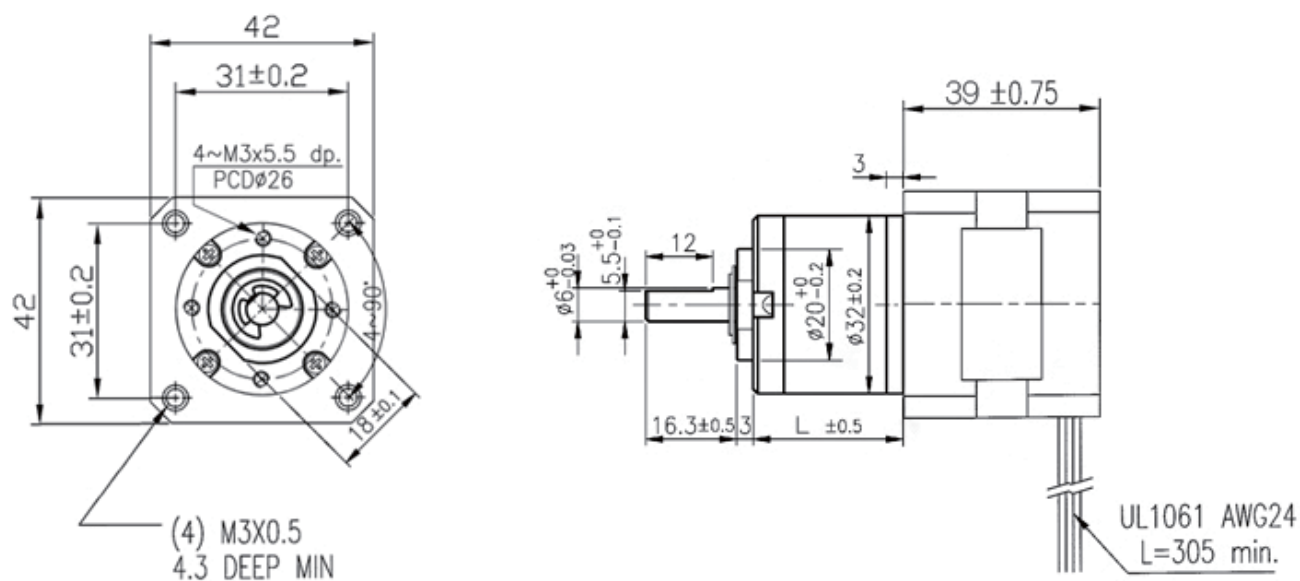
DSM42WM63A IG32

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$
 - Step angle: 1.8°
 - Rated voltage: 12(VDC)
 - Rated current: 0.4A
 - Holding torque : 2600 gf-cm
 - Winding resistance: $30\Omega \pm 10\%$
 - Inductance: $23\text{mH} \pm 20\%$
 - Motor weight: 250g



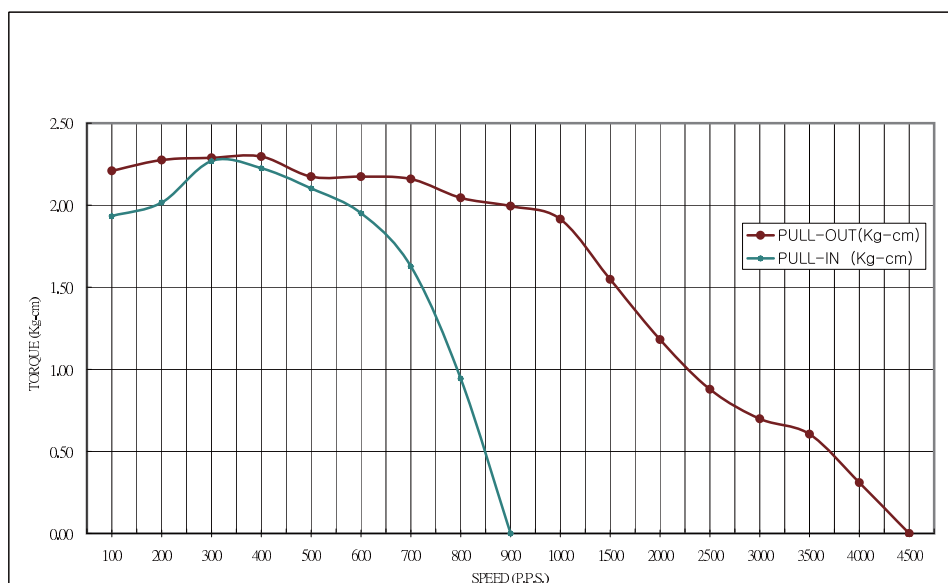
SPECIFICATION

Dimension



Geared Motor

감속기 길이 (mm) Gear Head L	20.6	27			33.4				39.8			
중량(g)	102	122			147				173			
감속비 Reduction ratio	1/5	1/14	1/19	1/27	1/51	1/71	1/100	1/139	1/189	1/264	1/516	1/721
Rated Torque(Kgf.cm)	2	4	4	6	8	8	10	10	12	12	12	12



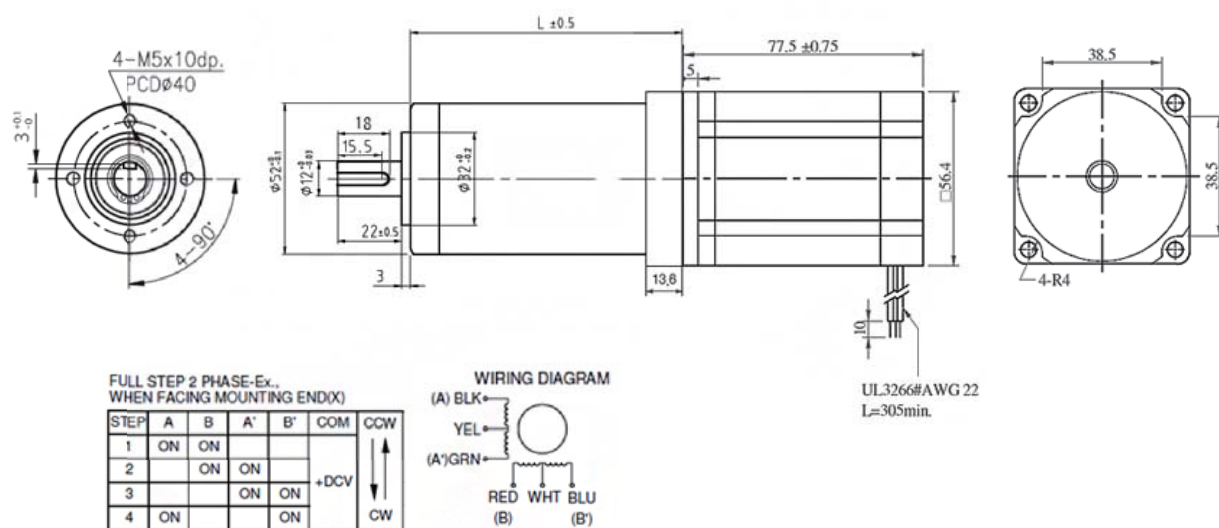
DSM56WL63A IG52

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$
 - Step angle: 1.8°
 - Rated voltage: 3.0(VDC)
 - Rated current: 3.0A
 - Holding torque : 13500 gf-cm
 - Winding resistance: $1.0\Omega \pm 10\%$
 - Inductance: $1.7\text{mH} \pm 20\%$



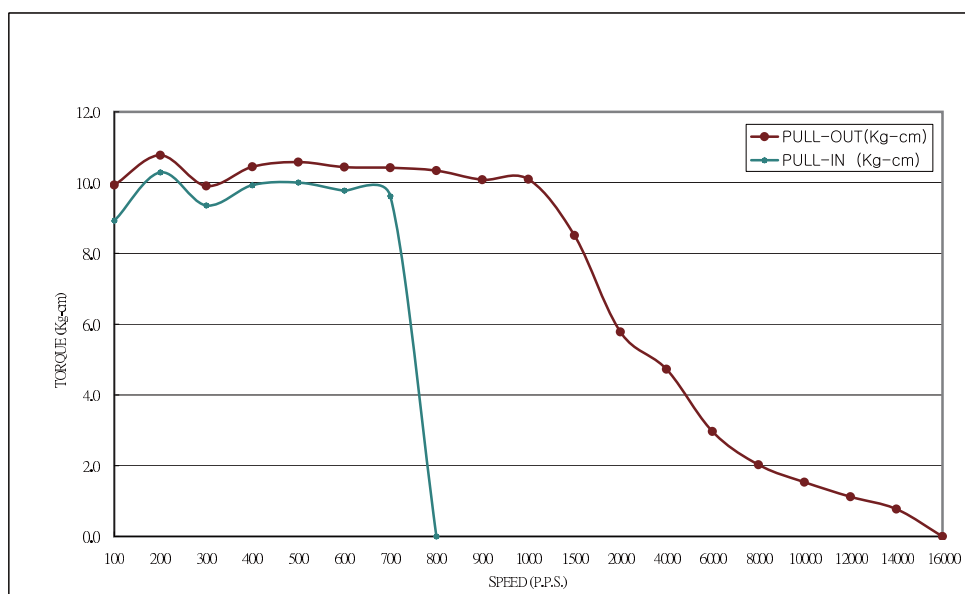
SPECIFICATION

Dimension



Geared Motor

감속기 길이 (mm) Gear Head L	60.6		76.1			91.6						107.1			
중량(g)	1561		1746			1936						2106			
감속비 Reduction ratio	1/3	1/4	1/12	1/15	1/19	1/43	1/53	1/66	1/81	1/100	1/113	1/150	1/230	1/285	1/353
Rated Torque(Kgf.cm)	10	10	30	30	50	100	100	100	100	100	100	100	100	100	100



DST42,56 SERIES

내부결선도, 여자순서도

WIRING DIAGRAM AND DRIVING

●Bipolar series connection – 4 leads diagram

WIRING DIAGRAM

Bipolar ;
Two phase driving

STEP	Black A	RED B	Green \overline{A}	Blue \overline{B}	
1	+	+	-	-	<div> <div>CCW</div> <div>↑</div> <div>↓</div> <div>CW</div> </div>
2	-	+	+	-	
3	-	-	+	+	
4	+	-	-	+	

●Unipolar– 6 leads diagram

WIRING DIAGRAM

Unipolar ;
Two phase driving

STEP	Black A	RED B	Green \overline{A}	Blue \overline{B}	COM	
1	ON	ON			<div> <div>+DCV</div> </div>	<div> <div>CCW</div> <div>↑</div> <div>↓</div> <div>CW</div> </div>
2		ON	ON			
3			ON	ON		
4	ON			ON		

5

BRAKE MOTOR SERIES

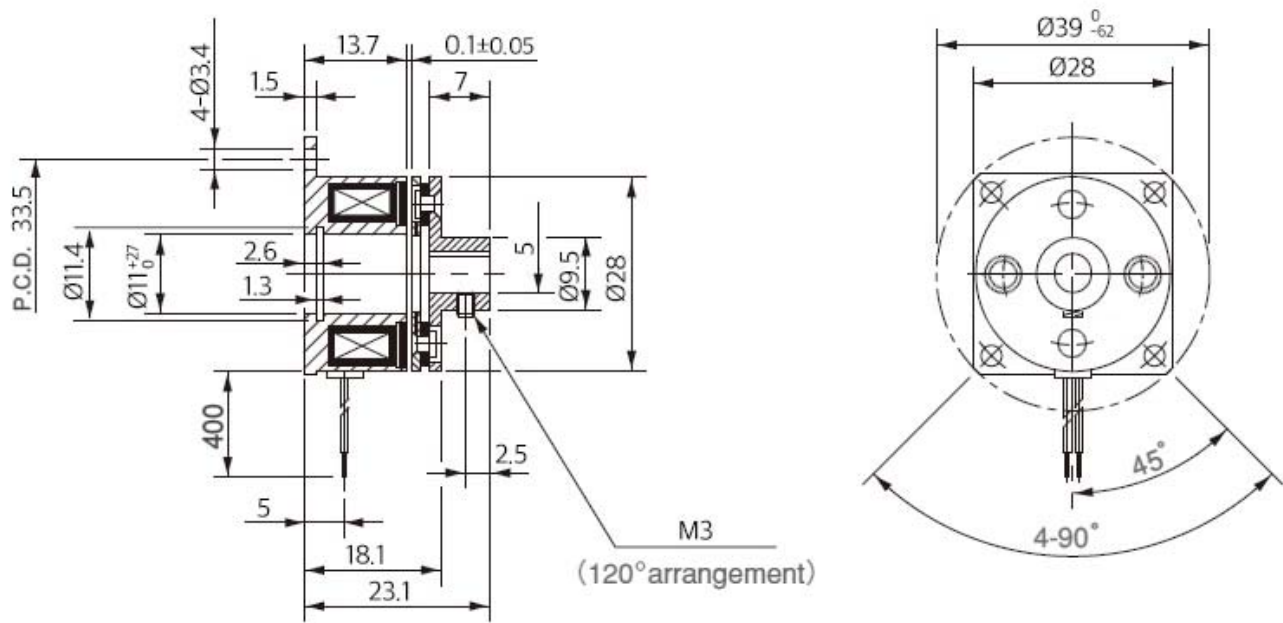
MIKI-112-02-11

- Torque: 0.4 N · m
- Voltage: DC12V
- Output: 6W
- Current: 0.25A
- Resistance: 96Ω



SPECIFICATION

Dimension



Dynamic friction torque T _d [N.M]	Coil (at 20°C)				Heat-resistance class	Maximum rotation speed [min ⁻¹]	Armature moment speed [kg.m ²]	Allowable moment of inertia J	Total amount of energy before air gap readjustment	Armature pull in time t _a [s]	Torque build-up time t _p [s]	Torque decaying time t _d [s]	Mass [kg]
	Voltage [V]	Wattage [W]	Amperage [A]	Resistance									
0.4	DC12	6	0.25	96	B	10000	1.00X10 ⁻⁵	1500	2X10 ⁵	0.004	0.010	0.010	0.057

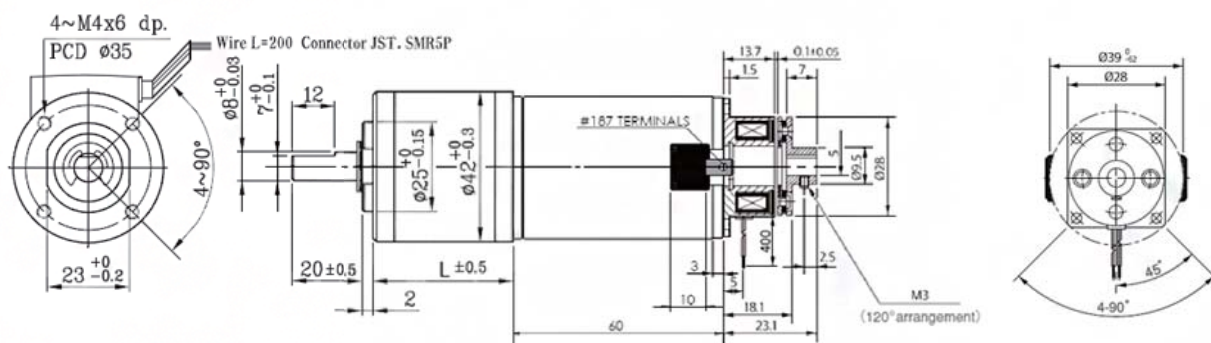
DBGM 12/24 WITH IG42

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10°C ~ +60°C



SPECIFICATION

Dimension

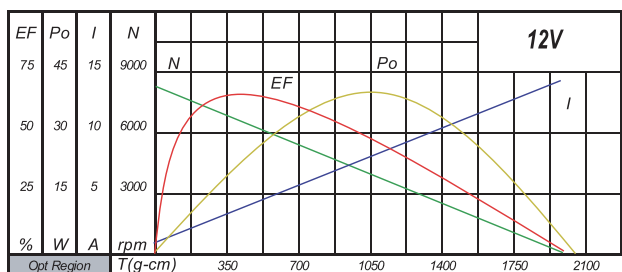


Geared Motor

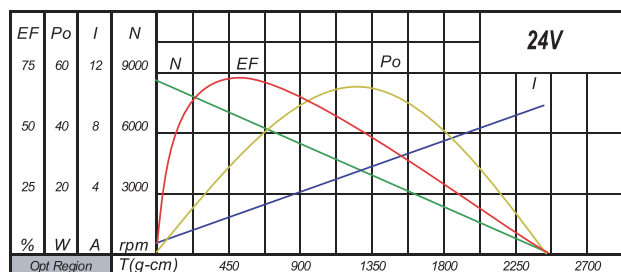
감속기 길이 (mm) Gear Head L		32.5	39.2				45.9				52.6						59.3				
중량(g)		569	621				661				711						756				
감속비 Reduction ratio		1/4	1/14	1/17	1/24	1/49	1/61	1/84	1/104	1/144	1/212	1/294	1/504	1/624	1/720	1/864	1/1062	1/1470	1/2500	1/3000	1/3600
DBM-42 12V	Rated Torque (Kgf.cm)	0.85	2.6	3.2	4.5	7.8	9.8	13	16.7	20	25	25	30	30	30	30	30	30	30	30	30
	Rated Speed (RPM)	1742	498	410	290	142	114	83	67	48	33	23.7	13.8	11	9.7	8	6.5	4.7	2.8	2.3	1.9
	No Load Speed (RPM)	2025	578	476	335	165	132	96	77	56	38	27	16	12	11.2	9.3	7.6	5.5	3.2	2.7	2.2
DBM-42 24V	Rated Torque (Kgf.cm)	1	3	3.7	5.2	9.2	11.5	15.8	19.5	20	25	25	30	30	30	30	30	30	30	30	30
	Rated Speed (RPM)	1861	532	438	310	152	122	88.6	71.35	51.7	35	25	14.8	11.9	10.3	8.6	7	5	2.9	2.48	2.06
	No Load Speed (RPM)	2125	607	500	354	173	139	101	81	59	40	29	16.8	13.6	11.8	9.8	8	5.7	3.4	2.8	2.3

Motor

DBGM42-12V MOTOR(DC 12V)		
정격 토크 Rated torque	268	(gf-cm)
정격 회전수 Rated speed	6,969	(RPM)
정격 전류 Rated current	2,334	(mA)
무부하 회전수 No load speed	8,100	(RPM)
무부하 전류 No load current	360	(mA)
정격 출력 Rated output	19.18	(W)



DBGM42-24V MOTOR(DC 24V)		
정격 토크 Rated torque	314	(gf-cm)
정격 회전수 Rated speed	7,445	(RPM)
정격 전류 Rated current	1,364	(mA)
무부하 회전수 No load speed	8,500	(RPM)
무부하 전류 No load current	190	(mA)
정격 출력 Rated output	24.01	(W)



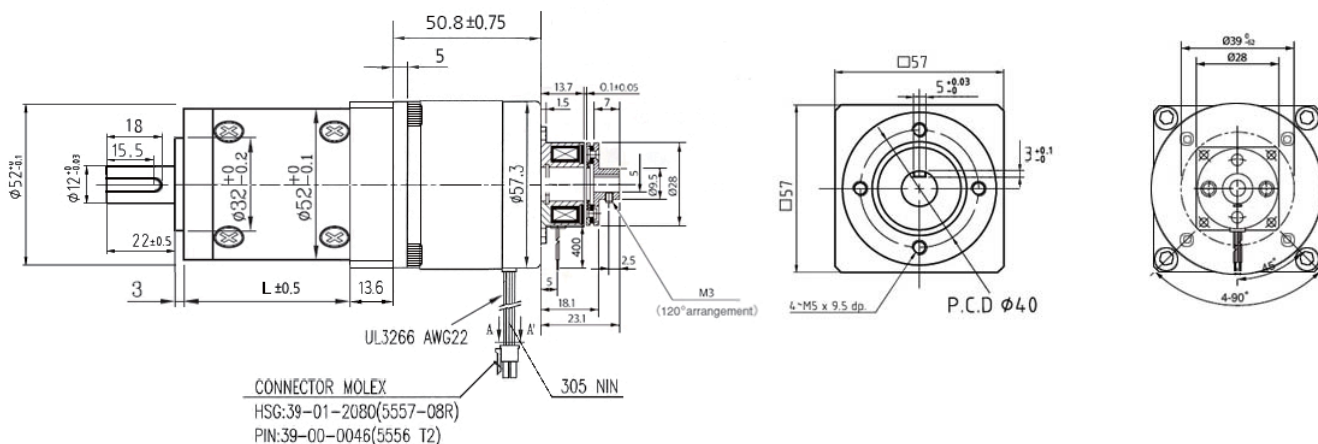
DBG52-BL24V-31W

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10℃ ~ +60℃



SPECIFICATION

Dimension



Geared Motor

감속기 길이 (mm) Gear Head L			47		62.5						78						93.5									
중량(g)			1199		1384						1574						1744									
감속비 Reduction ratio			1/3	1/4	1/12	1/15	1/19	1/21	1/26	1/43	1/53	1/66	1/81	1/100	1/113	1/126	1/150	1/230	1/285	1/353	1/488	1/546	1/676	1/756	1/936	
31W 24V	Rated Torque (Kgf.cm)	2.4	3.2	8.4	10.5	13.3	14.7	18.2	25.8	31.8	39.6	48	60	67.8	75.6	75	100	100	100	100	100	100	100	100	100	
	Rated Speed (RPM)	1000	750	250	200	157	142	115	69	56	45	37	30	26.5	24	20	13	10.5	8	6	5	4.4	3.9	3.2		
	No load Speed (RPM)	1166	875	291	233	184	166	134	81	66	53	43	35	31	28	23	15	12	10	7	6	5	4.6	3.7		

Motor

31W MOTOR(DC 24V)				
PARAMETER	SYMBOL	UNITS	VALUE	TOLERANCE
RATED VOLTAGE	V	VOLTS	24	Normal
NO LOAD SPEED	SNL	RPM	3500	±10%
RATED TORQUE	TC	Kg-cm	1	Normal
RATED SPEED	SC	RPM	3000	±10%
RATED CURRENT	IC	AMP	1.9	±10%
RATED POWER	Pout	W	31	Normal
PEAK TORQUE	TP	Kg-cm	TBD	Min
PEAK CURRENT	IP	AMP	TBD	Max
VOLTAGE CONSTANT	KE	V/rad/sec	0.065	±10%
RESISTANCE	R	OHM	2	±10%
INDUCTANCE	LM	mH	TBD	±30%
INERTIA	JM	g-cm ²	200	±10%
WEIGHT	W	Kg	0.6	Max
AMBIENT TEMPERATURE	T	°C	-10 ~ +60	TYP

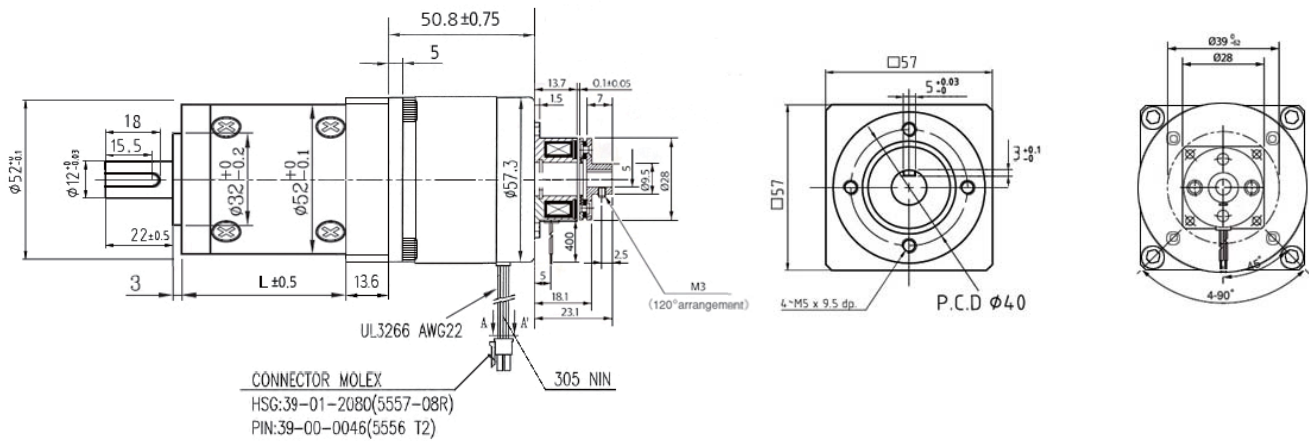
DBG52-BL24V-50W

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10℃ ~ +60℃



SPECIFICATION

■ Dimension



■ Geared Motor

감속기 길이 (mm) Gear Head L		47	62.5						78						93.5									
중량(g)		1199	1384						1574						1744									
감속비 Reduction ratio		1/3	1/4	1/12	1/15	1/19	1/21	1/26	1/43	1/53	1/66	1/81	1/100	1/113	1/126	1/150	1/230	1/285	1/353	1/488	1/546	1/676	1/756	1/936
50W 24V	Rated Torque (Kgf.cm)	4.6	6.2	16.2	20.3	25.7	28.4	35.1	49.8	61.4	76.4	93.8	100	100	100	100	100	100	100	100	100	100	100	100
	Rated Speed (RPM)	900	675	225	180	142	129	104	63	51	41	33	27	24	21	18	12	9	8	6	5	4	4	3
	No Load Speed (RPM)	1467	1100	367	293	232	210	169	105	83	67	54	44	39	35	29	19	15	12	9	8	7	6	5

■ Motor

50W MOTOR(DC 24V)				
PARAMETER	SYMBOL	UNITS	VALUE	TOLERANCE
RATED VOLTAGE	V	VOLTS	24	Normal
NO LOAD SPEED	SNL	RPM	4400	±10%
RATED TORQUE	TC	Kg-cm	1.93	Normal
RATED SPEED	SC	RPM	2700	±10%
RATED CURRENT	IC	AMP	3.75	±10%
RATED POWER	Pout	W	50	Normal
PEAK TORQUE	TP	Kg-cm	5.7	Min
PEAK CURRENT	IP	AMP	10	Max
VOLTAGE CONSTANT	KE	V/rad/sec	0.053	±10%
RESISTANCE	R	OHM	1.3	±10%
INDUCTANCE	LM	mH	TBD	±30%
INERTIA	JM	g-cm ²	200	±10%
WEIGHT	W	Kg	0.6	Max
AMBIENT TEMPERATURE	T	℃	-10~+60	TYP

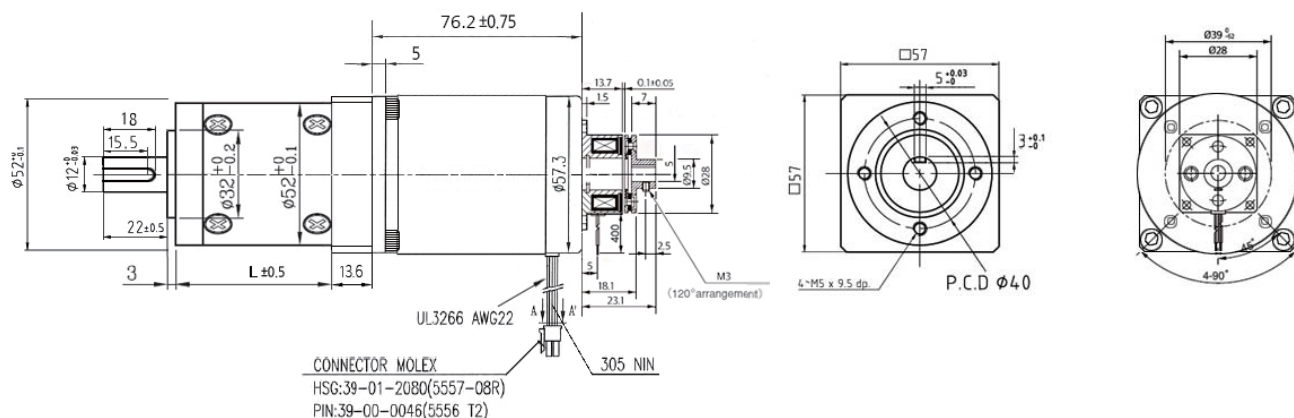
DBG52-BL24V-80W

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10℃ ~ +60℃



SPECIFICATION

Dimension



Geared Motor

감속기 길이 (mm) Gear Head L		47		62.5				78								93.5								
중량(g)		1625		1810				2000								2170								
감속비 Reduction ratio		1/3	1/4	1/12	1/15	1/19	1/21	1/26	1/43	1/53	1/66	1/81	1/100	1/113	1/126	1/150	1/230	1/285	1/353	1/488	1/546	1/676	1/756	1/936
80W 24V	Rated Torque (Kgf.cm)	6.8	9.1	23.9	29.9	37.9	41.9	51.8	73.5	90.6	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Rated Speed (RPM)	913	685	228	183	144	130	105	64	51.7	41.5	33.8	27.4	24.2	21.7	18.3	11.9	9.6	7.8	5.6	5	4.1	3.6	2.9
	No load Speed (RPM)	1233	925	308	246	194	176	142	86	69.8	56	45.7	37	32.7	29.4	24.7	16.1	13	10.5	7.6	6.8	5.5	4.9	4

Motor

80W MOTOR(DC 24V)				
PARAMETER	SYMBOL	UNITS	VALUE	TOLERANCE
RATED VOLTAGE	V	VOLTS	24	Normal
NO LOAD SPEED	SNL	RPM	3700	±10%
RATED TORQUE	TC	Kg-cm	2.85	Normal
RATED SPEED	SC	RPM	2740	±10%
RATED CURRENT	IC	AMP	5.5	±10%
RATED POWER	Pout	W	80	Normal
PEAK TORQUE	TP	Kg-cm	10.8	Min
PEAK CURRENT	IP	AMP	18.5	Max
VOLTAGE CONSTANT	KE	V/rad/sec	0.06	±10%
RESISTANCE	R	OHM	0.8	±10%
INDUCTANCE	LM	mH	TBD	±30%
INERTIA	JM	g-cm ²	330	±10%
WEIGHT	W	Kg	1.1	Max
AMBIENT TEMPERATURE	T	°C	-10~+60	TYP

6

PUMP MOTOR SERIES

DGP-6287-12

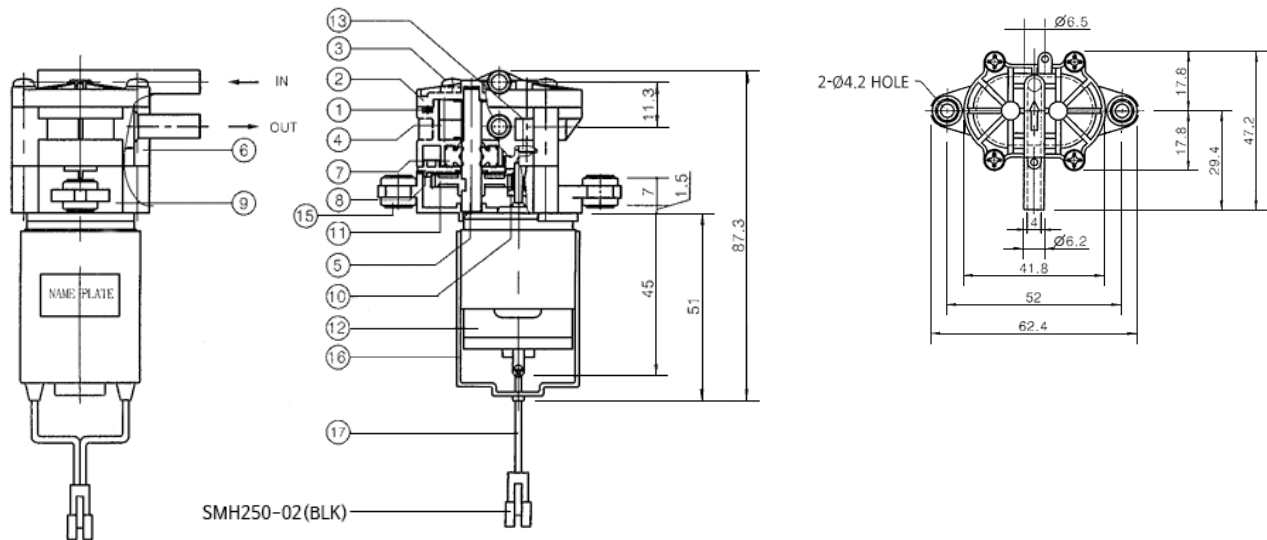
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10℃ ~ +60℃

- Rated voltage : DC12V
- Rated Current : 1.2A below
- 1Kg/cm² Rated load volume of water : 750cc more (per minute)
- Water flow with no load : 1,640cc ± 10% (per minute)
- Weight: 135g



SPECIFICATION

■ Dimension



■ Motor

펌프형식	2단 헬리컬 기어펌프 1/4 감속기어 사용
펌프구동방식	유체가압 토출방식
모터	DC BRUSH MOTOR, E종철연
펌프외장	개방형(모터부 방음용 고무캡 씌움)
사용조건	단기사용
사용유체 및 온도	상수도 및 지하수 (0℃ ~ 50℃) (단 동결시 제외)
사용 주위온도	0℃ ~ 50℃
사용 주위습도	45% ~ 85%
정격전압	DC12V
사용전압	DC6V ~ DC14V
1Kg/cm ² 부하시 정격전류	1.2A 이내
1Kg/cm ² 부하시 정격토수량	분당 750이상
LOCKING 압력	1.7Kg/cm ² 이상
무압정격전류	1.0A 이내
무압토수량	분당 1,640cc ± 10%
자흡시간	흡상고 0.3m / 5초이내 (정상구동, 5초 공회전 후 측정) (흡, 출구 호수내경 Ø4.0 이상 사용)
누수시험	외부가압 1.7Kg/cm ² 이상에서 1분간 누수가 없을것.
소음	60dB MAX (암소음 32dB, 1.0m 이내에서 측정)
중량	약 135g

NO	PART NAME	MATERIAL	M'T SIZE	Q'TY	REMARKS
1	O-RING	NBR 60	W1.9	1	
2	COVER	Noryl GFN2		1	BLACK
3	MOUNTING SCREW	STS303	Ø3X30	4	NI
4	GEAR A,B	Noryl GFN2		4	
5	SHAFT #1	STS304	Ø4	1	
6	BODY	Noryl GFN2		1	BLACK
7	OIL SEAL	HHG60		1	BLACK
8	SEAL BRACKET	Molybden		1	NATURAL
9	MOTOR BRACKET	Noryl GFN2		1	BLACK
10	PINION GEAR	Molybden		1	NATURAL
11	INSERT GEAR	Elastomer		1	WHITE
12	MOTOR	Fulling MOTOR	DC 12V	1	
13	SHAFT #2	SWCH1A	Ø3X16	1	
14	MOTOR SCREW	SWCH1A	M2.6	2	Zn
15	MOUNTING BUSH	EPDM40		2	BLACK
16	MOTOR CAP	NBR70(난연)		1	BLACK
17	LEAD WIRE	AWG 1007 #22		1	

DGP-83130-24

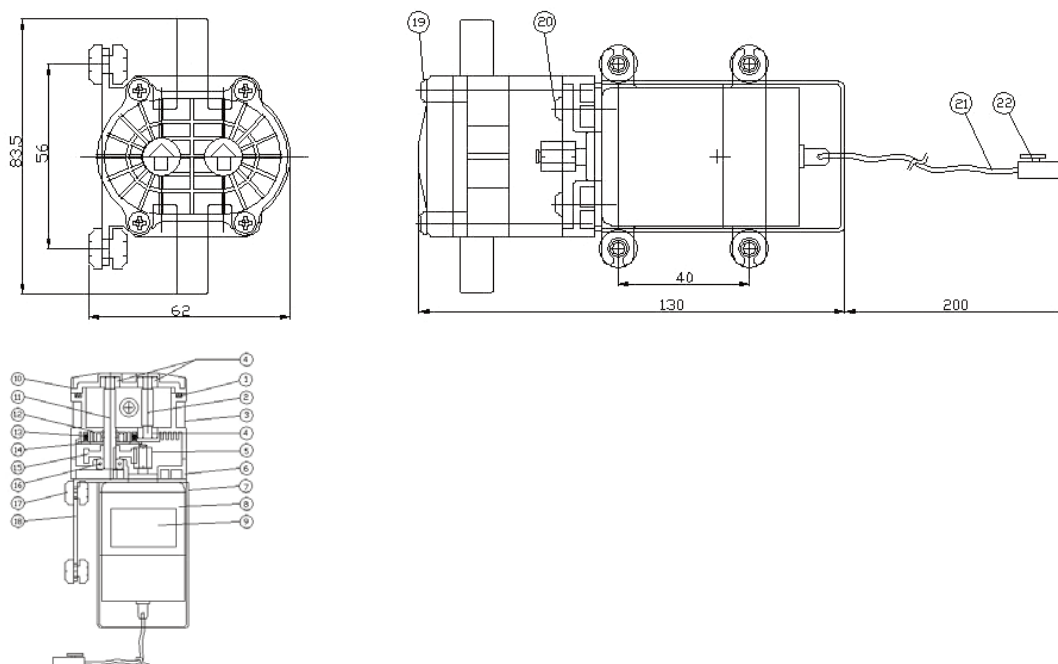
- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10℃ ~ +60℃

- Rated voltage : DC24V
- Rated current : 3.0A below
- 2Kgf/cm² Rated load volume of water : 2000cc more(per minute)
- Water flow with no load : 2,800cc more (per minute)
- Weight: 505g



SPECIFICATION

■ Dimension



■ Motor

펌프형식	2단 헬리컬 기어펌프 1/4 감속기어 사용
펌프구동방식	유체가압 토출방식
모터	DC BRUSH MOTOR, E종절연
펌프외장	개방형(모터부 방음용 고무캡 씌움)
사용조건	단기사용
사용유체 및 온도	상수도 및 지하수 (0℃ ~ 50℃) (단 동결시 제외)
사용 주위온도	0℃ ~ 50℃
사용 주위습도	45% ~ 85%
정격전압	DC12V
사용전압	DC6V ~ DC14V
1Kgf/cm ² 부하시 정격전류	1.2A 이내
1Kgf/cm ² 부하시 정격토수량	분당 750이상
LOCKING 압력	1.7Kgf/cm ² 이상
무압정격전류	1.0A 이내
무압토수량	분당 1,640cc ± 10%
자흡시간	흡상고 0.3m / 5초이내 (정상구동, 5초 공회전 후 측정) (흡, 출구 호수내경 Ø4.0 이상 사용)
누수시험	외부가압 1.7Kgf/cm ² 이상에서 1분간 누수가 없을것.
소음	60dB MAX (암소음 32dB, 1.0m 이내에서 측정)
중량	약 135g

NO	PART NAME	MATERIAL	M/T SIZE	QTY
1	O-RING	NBR W2.4	1	BLACK
2	SHAFT	SUS304	1	
3	BODY	NORYL	1	BLACK
4	BUSHING	PES	3	BLACK
5	PINION GEAR	POM	1	NATURAL
6	MOTOR BRACKET	NORYL	1	BLACK
7	CAP-MOTOR	NBR	1	BLACK
8	MOTOR	DC 24V	1	
9	LABEL	GGP2K-024	1	
10	COVER	Ø2.6 * 5 STS	1	BLACK
11	SHAFT-INSERT	SUS304	1	
12	OIL SEAL	NBR	1	BLACK
13	SCREW-M	Ø2.6 * 5 STS	2	SUS
14	SEAL-PLATE	SUS304	1	
15	GEAR-INSERT	KEL	1	
16	BEARING	Ø6 * 13	1	
17	MOUNTING-RUBBER	NBR	4	
18	BASE PLATE	SPCL	1	
19	TAPPING SCREW	Ø4 * 50 STS	2	
20	SCREW	M4 * 11 STS	2	
21	LEAD WIRE	AWG #20 200mm	1	BLK, RED
22	HOUSING	SMH396-03	1	

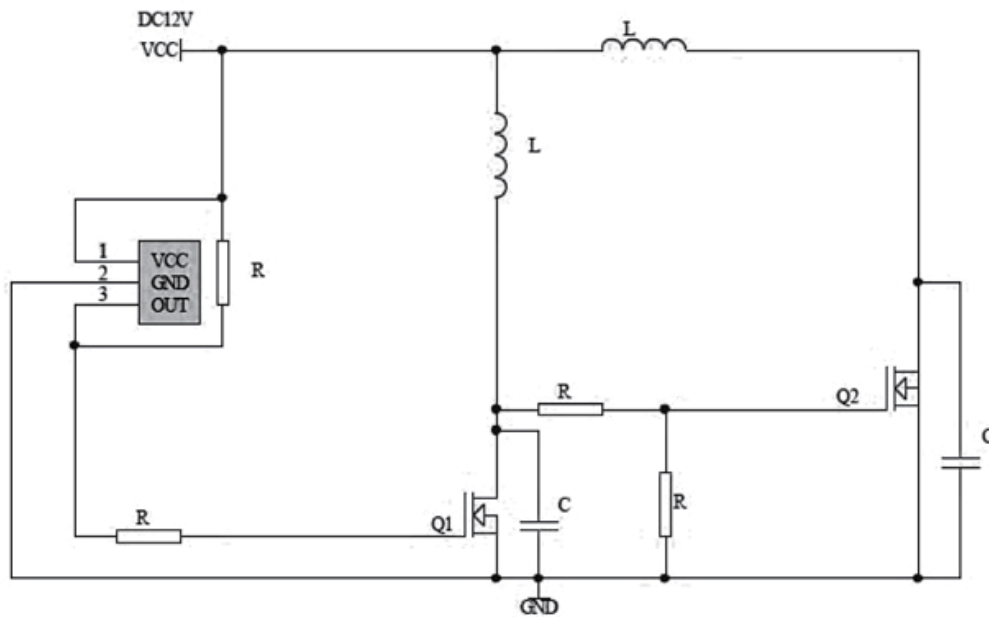
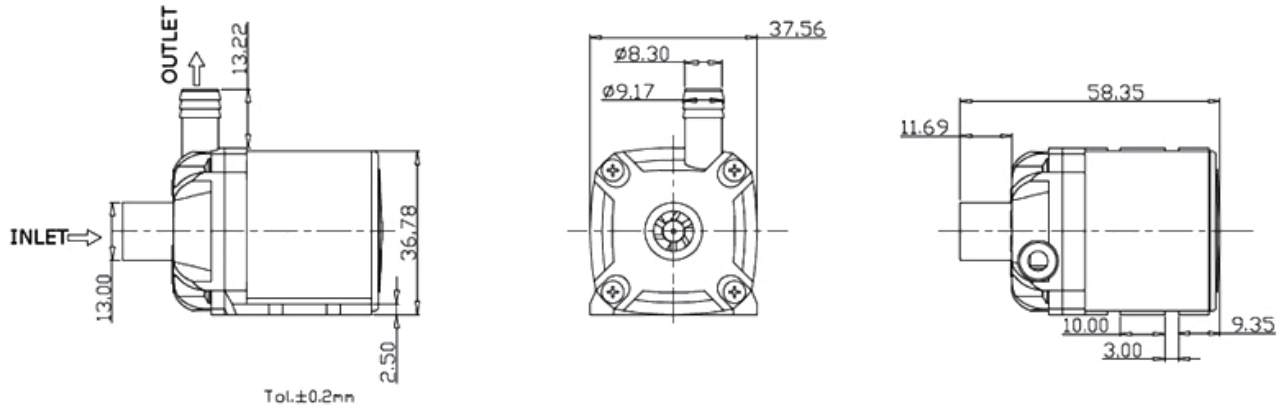
HBL-3001-12/24

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10°C ~ +60°C



SPECIFICATION

■ Dimension



■ Motor

HBL3001 (DC 12/24V)		
INPUT VOLTAGE	DC12V	DC24V
FLOW (0Bar)	3.6~4.5 L/min	4.5~5.5 L/min
HEAD LIFT	2.2~2.8M	3.6~4.5M
INSULATION CLASS	B	B
OPERATING TEMPERATURE	0~40°C	0~40°C
CURRENT	600~700mA	600~700mA

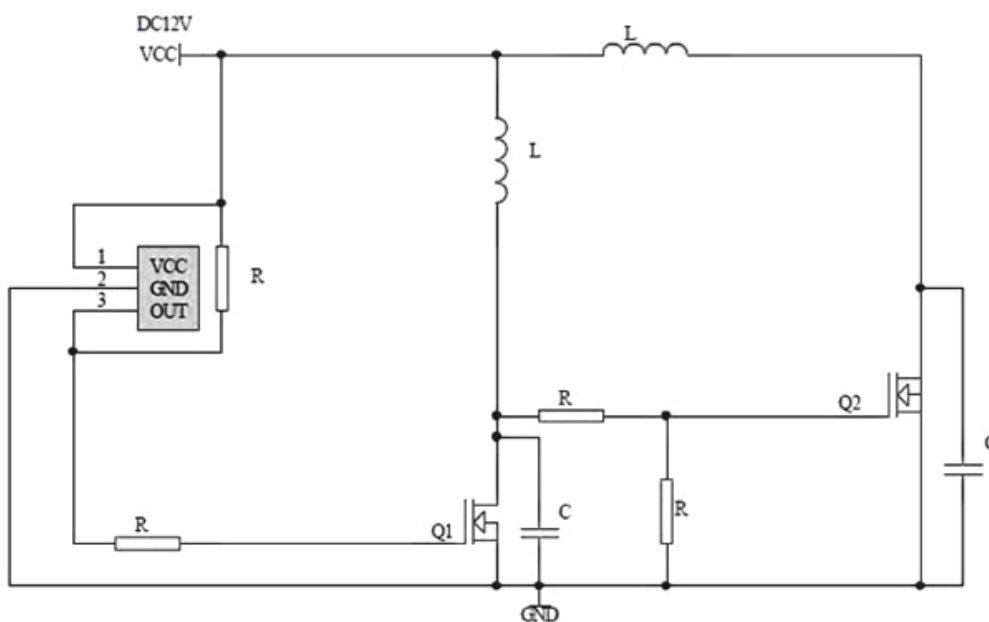
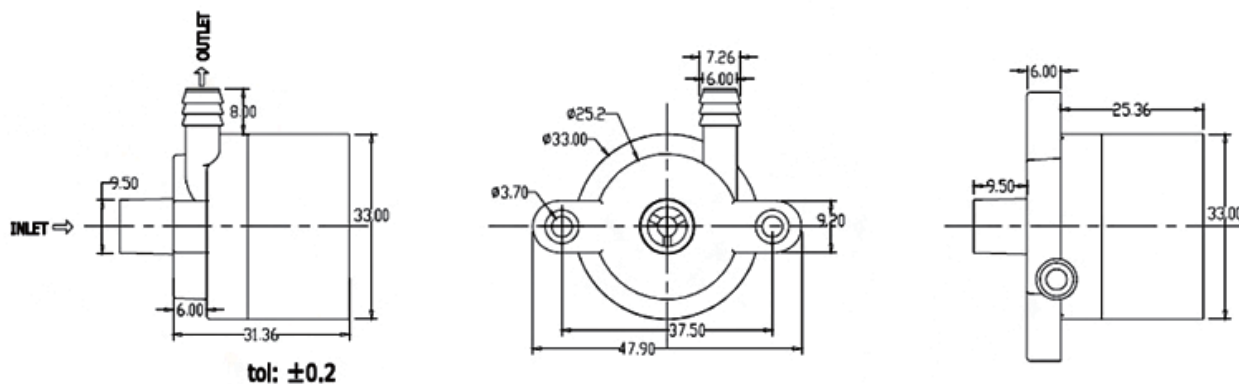
HBL-3002-12

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$



SPECIFICATION

Dimension



Motor

HBL3002 (DC 12V)	
INPUT VOLTAGE	DC12V
FLOW (0Bar)	2.9~3.5 L/min
HEAD LIFT	2.8~3.5M
INSULATION CLASS	B
OPERATING TEMPERATURE	0~40°C
CURRENT	<500mA

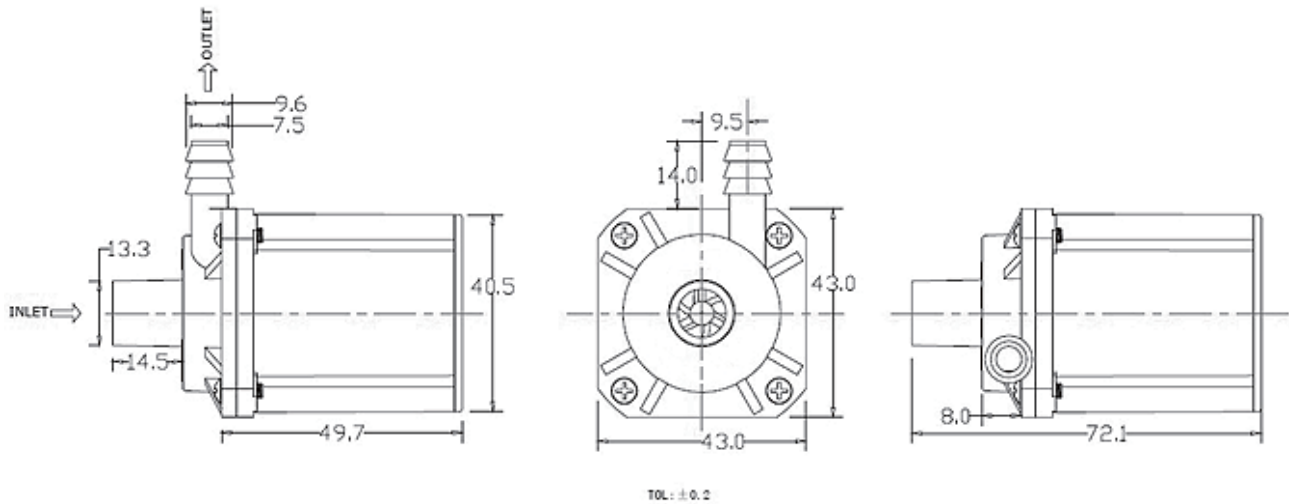
HBL-3602

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10℃ ~ +60℃
- Input voltage: DC24V
- Flow (0Bar): 5~6 L/min
- Head lift: 1.8~2.4M
- Insulation Class: B
- Operating temperature range: 0~50℃
- Current: <250mA
- Noise: 40db이하 (1m거리)
- Weight: 170g



SPECIFICATION

■ Dimension



■ Motor

HBL3602 (DC 24V)	
INPUT VOLTAGE	DC24V
FLOW (0Bar)	5~6 L/min
HEAD LIFT	1.8~2.4M
INSULATION CLASS	B
OPERATING TEMPERATURE	0~50℃
CURRENT	<250mA

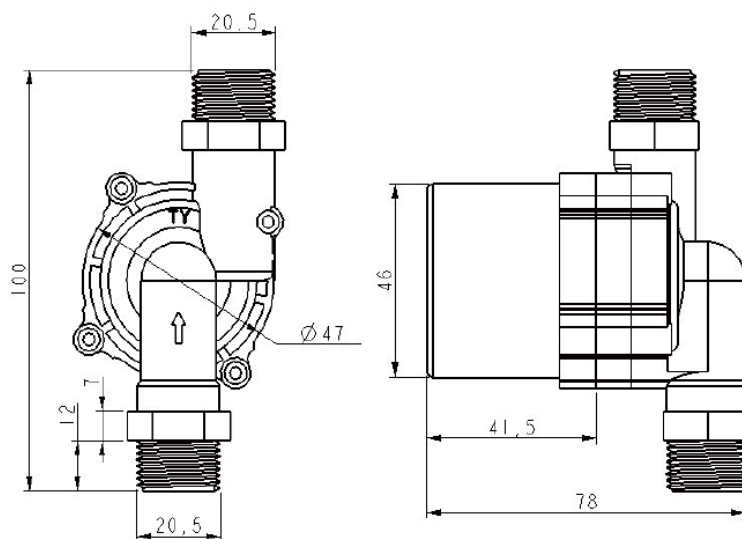
BLPT-4778

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : -10°C ~ +60°C



SPECIFICATION

■ Dimension



■ Motor

NO	ITEMS	SPECIFICATION	NOTE
1	Phases.poles	2phases.4Poles	with PWM or not
2	Rated voltage	DC12(V)	
3	Operation voltage	6-14V	
4	Rated current	1.6A±10%	DC 12V
5	Working rated	Continuous	
6	Input power	20W	
7	Rated speed	3500±5%RPM/min	DC 12V
8	Maximum flow rate	10L/min (at 0 head and open outlet)	
9	Maximum water head	6.0±1m (Circumgyrate orientation)	
10	Operating Temperature	<70°C (Motor surface)	
11	Starting voltage	9V	
13	NOISE	40 DB/MAX	1M distance
14	Lifetime	25000H	At rated speed
15	IP Level	IP 62	
16	Coil Insulation class	Class E	
17	Insulation resistance	more than DC500V/10MΩ between the bracket and terminal	
18	Insulation endurance	AC500/60S or AC600V/1S between the bracket and terminal,leakage current of 1mA	

7

WORM GEARED MOTOR SERIES

DWBG-4562

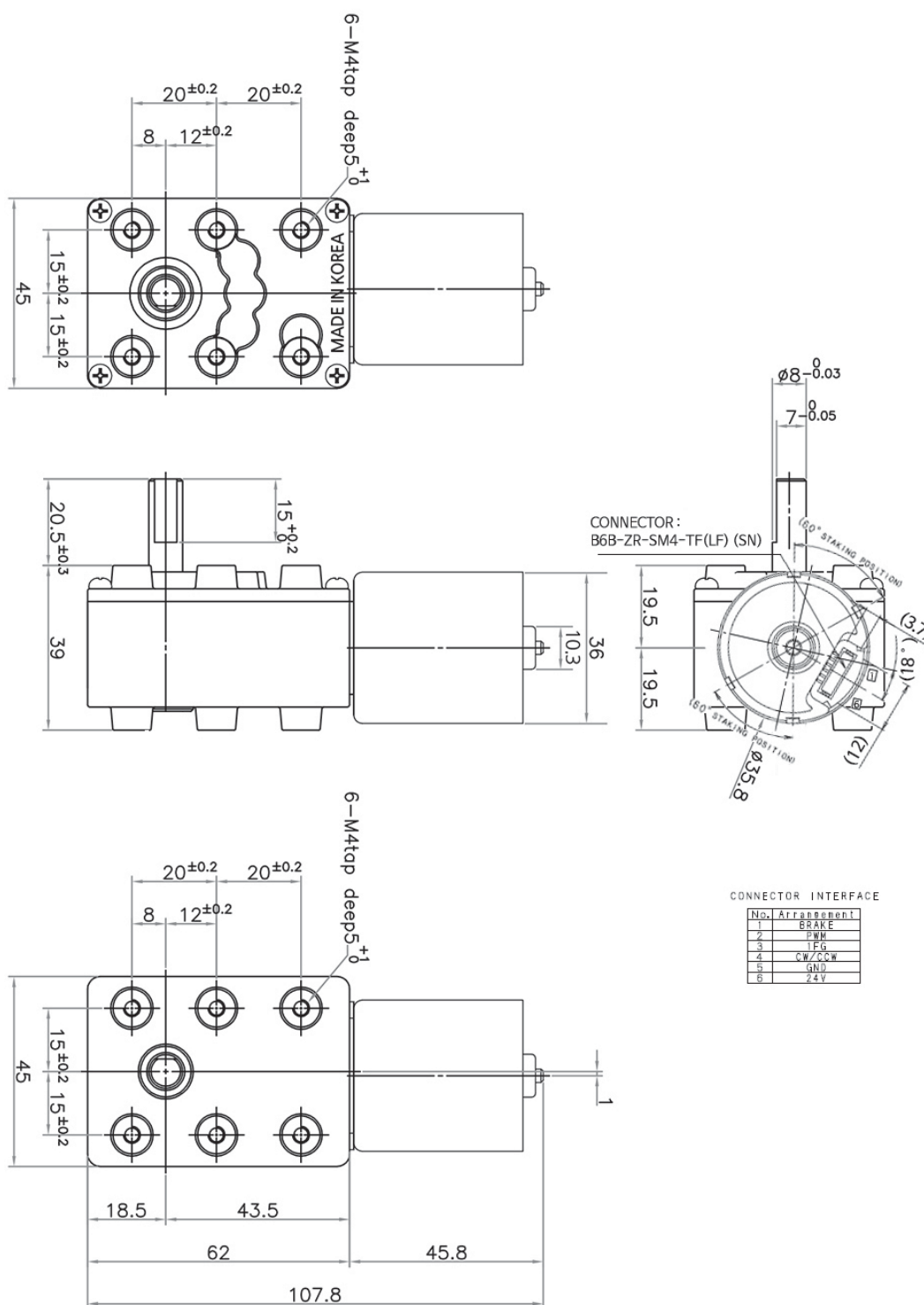
12/24V-P/B

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$
- 옵션 사항 : 양축 샤프트
- (P : 일부분 플라스틱 기어 / B : 일부분 브론즈 기어)



SPECIFICATION

■ Dimension



SPECIFICATION

■ Motor

감속기길이 Gear Head L (mm)		62												
중량 Weight(g)		440												
감속비 Reduction ration		1/48	1/66	1/77	1/88	1/99	1/120	1/140	1/170	1/198	1/270	1/360	1/704	1/1036
DWBG-4562 12V	Rated Torque(kgf.cm)	3	4.1	4.8	5.5	6.1	7.5	8.7	11	12	17	23	30	30
	Rated Speed(RPM)	73	53	46	40	35	29	25	21	18	13	10	5	3.4
	No load Speed(RPM)	104	76	65	57	51	42	36	29	25	19	14	7.1	4.8
DWBG-4562 24V	Rated Torque(kgf.cm)	3	4.1	4.8	5.5	6.1	7.5	8.7	11	12	17	23	30	30
	Rated Speed(RPM)	81	59	51	44	39	33	28	23	20	14	11	5.5	3.8
	No load Speed(RPM)	104	76	65	57	51	42	36	29	25	19	14	7.1	4.8

BLDC MOTOR (DC12V)			BLDC MOTOR (DC24V)		
정격 토크 Rated torque	250	(gf-cm)	정격 토크 Rated torque	250	(gf-cm)
정격 회전수 Rated speed	3,500	(RPM)	정격 회전수 Rated speed	3,900	(RPM)
정격 전류 Rated current	1,600	(mA)	정격 전류 Rated current	900	(mA)
무부하 회전수 No load speed	5,000	(RPM)	무부하 회전수 No load speed	5,000	(RPM)
무부하 전류 No load current	750	(mA)	무부하 전류 No load current	360	(mA)
정격 출력 Rated output	8.75	(W)	정격 출력 Rated output	10	(W)

DWG-4562

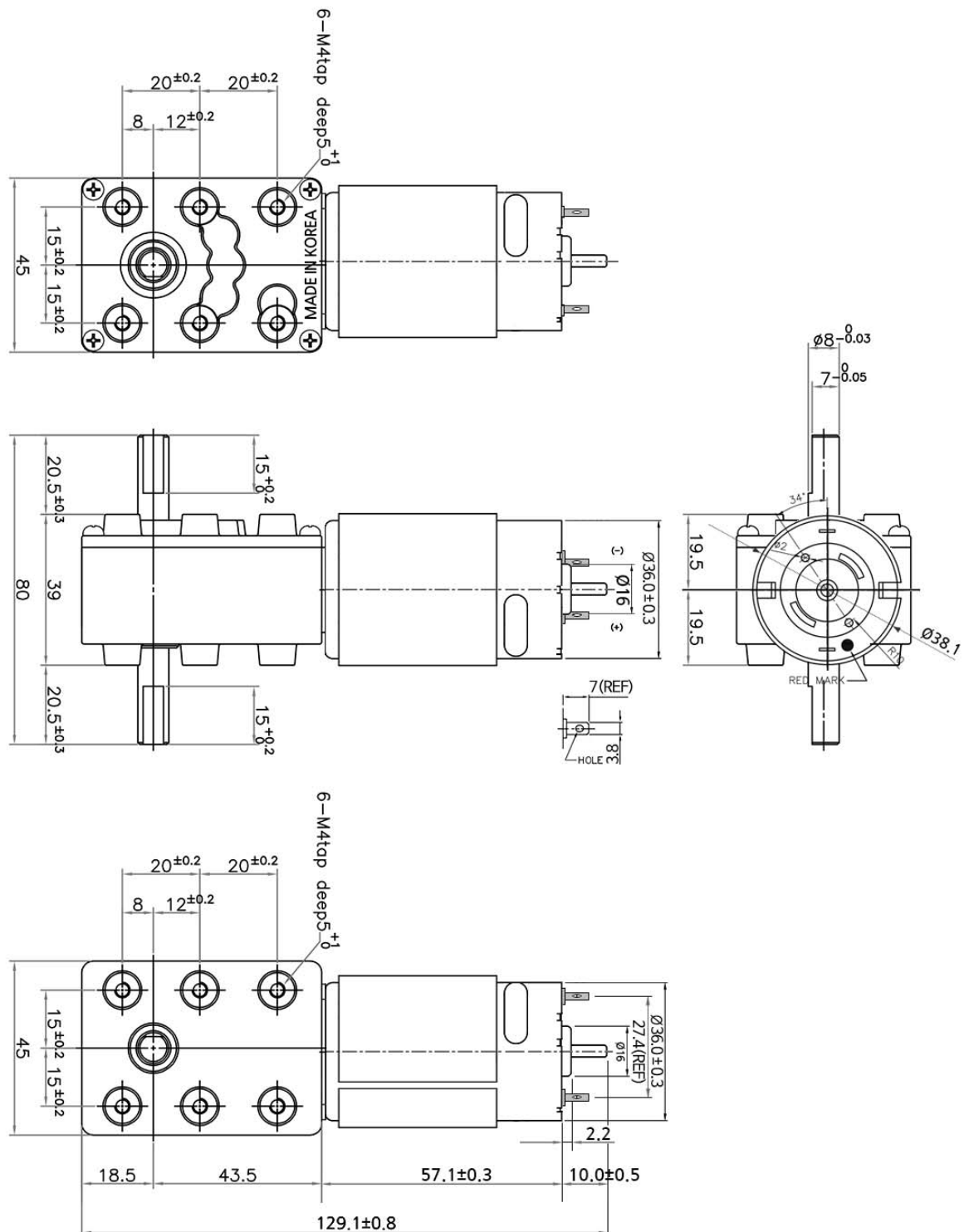
12/24V-P/B

- 사용습도(Operating relative humidity) : 20% ~ 85%
- 사용온도(Operating temperature) : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$
- 옵션 사항 : 양축 샤프트, 엔코더 적용 가능
- (P : 일부분 플라스틱 기어 / B : 일부분 브론즈 기어)



SPECIFICATION

■ Dimension



SPECIFICATION

■ Motor

감속기길이 Gear Head L (mm)		62												
중량 Weight(g)		520												
감속비 Reduction ration		1/48	1/66	1/77	1/88	1/99	1/120	1/140	1/170	1/198	1/270	1/360	1/704	1/1036
DWG-4562 12V	Rated Torque(kgf.cm)	3	4.1	4.8	5.5	6.1	7.5	8.7	11	12	17	23	30	30
	Rated Speed(RPM)	102	75	64	56	49	41	35	29	24	18	13	7	4.8
	No load Speed(RPM)	125	91	77	68	61	50	42	35	30	22	16	8.5	5.8
DWG-4562 24V	Rated Torque(kgf.cm)	2.8	3.9	4.6	5.2	5.9	7.2	8.4	10	12	16	22	30	30
	Rated Speed(RPM)	107	78	66	58	52	42	36	30	26	19	14	7.3	5
	No load Speed(RPM)	125	91	77	68	61	50	42	35	30	22	16	8.5	5.8

DC MOTOR (DC12V)			DC MOTOR (DC24V)		
정격 토크 Rated torque	250	(gf-cm)	정격 토크 Rated torque	240	(gf-cm)
정격 회전수 Rated speed	4,930	(RPM)	정격 회전수 Rated speed	5,150	(RPM)
정격 전류 Rated current	1,600	(mA)	정격 전류 Rated current	750	(mA)
무부하 회전수 No load speed	6,000	(RPM)	무부하 회전수 No load speed	6,000	(RPM)
무부하 전류 No load current	250	(mA)	무부하 전류 No load current	130	(mA)
정격 출력 Rated output	12.8	(W)	정격 출력 Rated output	12.7	(W)

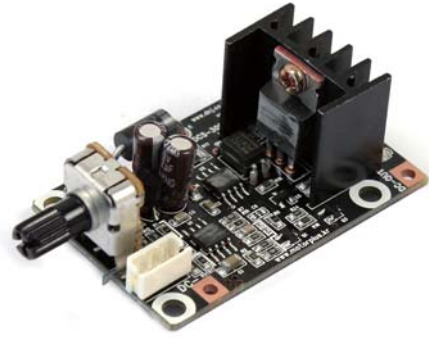


DC MOTOR DRIVER

DCS-30090-CN

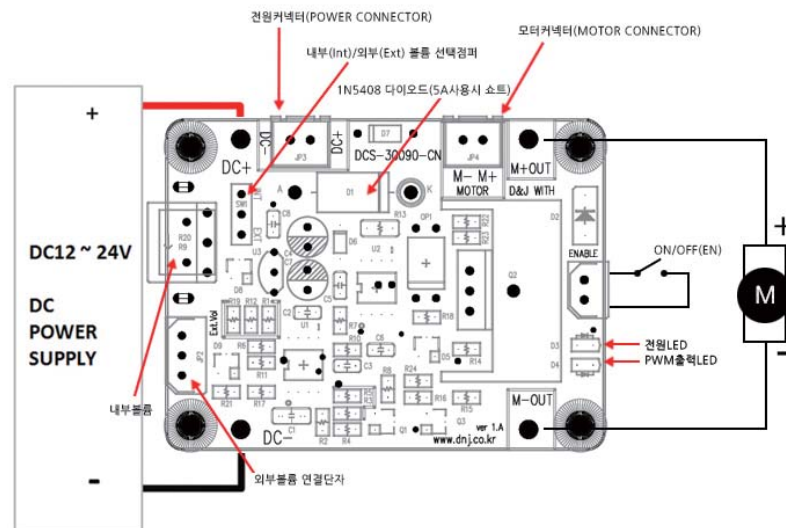
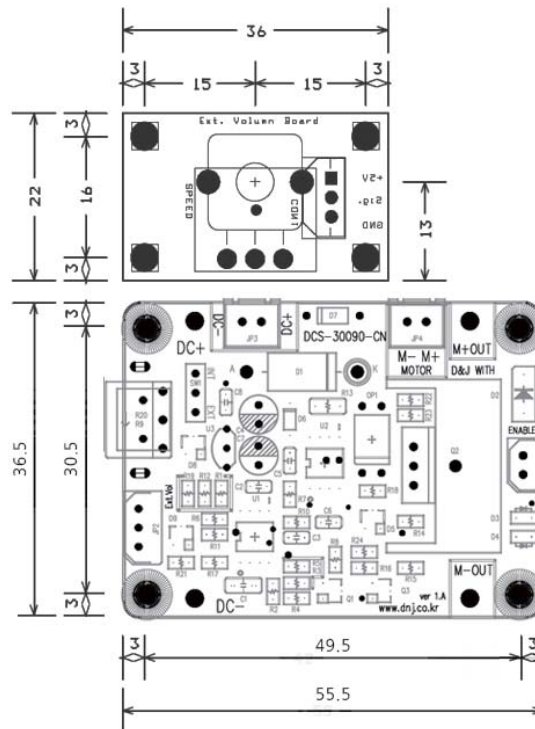
- 사용습도(Operating relative humidity) : 20% ~ 60%
- 사용온도(Operating temperature) : 0℃ ~ +50℃

- 납땜/커넥터 연결방식 적용
- DC12V~24V / 3Amax (다이오드 쇼트시 5A 가능)
- ON/OFF 제어용 입력 /Input for ON/OFF Controls
- 가변저항 속도 제어 (내부볼륨)
- 속도(출력) 제어용 볼륨 (내장/외장 선택가능)
- 외장형 볼륨 입력 (별도구매가능)



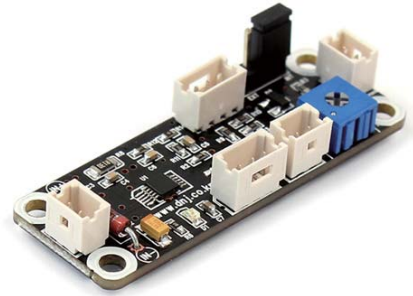
SPECIFICATION

■ Dimension



DCD-06006

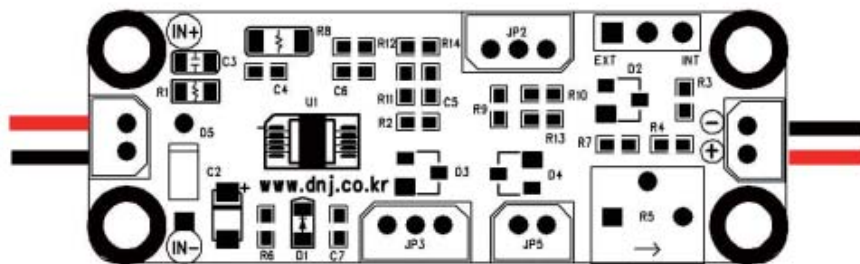
- 사용습도(Operating relative humidity) : 20% ~ 60%
- 사용온도(Operating temperature) : 0℃ ~ +50℃



- 저전압 DC모터 드라이버 / Different Models for DC 2.7V~7V.
- ON/OFF 제어용 입력 / Input for ON/OFF Controls.
- CW/CCW 제어용 입력 / Input for CW/CCW Controls.
- 속도(출력) 제어용 볼륨(내장/외장 선택가능) / Volume for Speed(Output) Controls.
(Can be selected internal and external volume.)
- 외장형 볼륨 입력 (별도구매가능) / Input volume external modular (Optional)

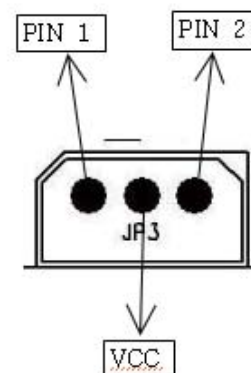
SPECIFICATION

■ Dimension



JP3 H-BRIDGE LOGIC TABLE

PIN 1	PIN 2	Function
0	0	Sleep/Coast
0	1	Reverse
1	0	Forward
1	1	Brake



DCD-24V03A

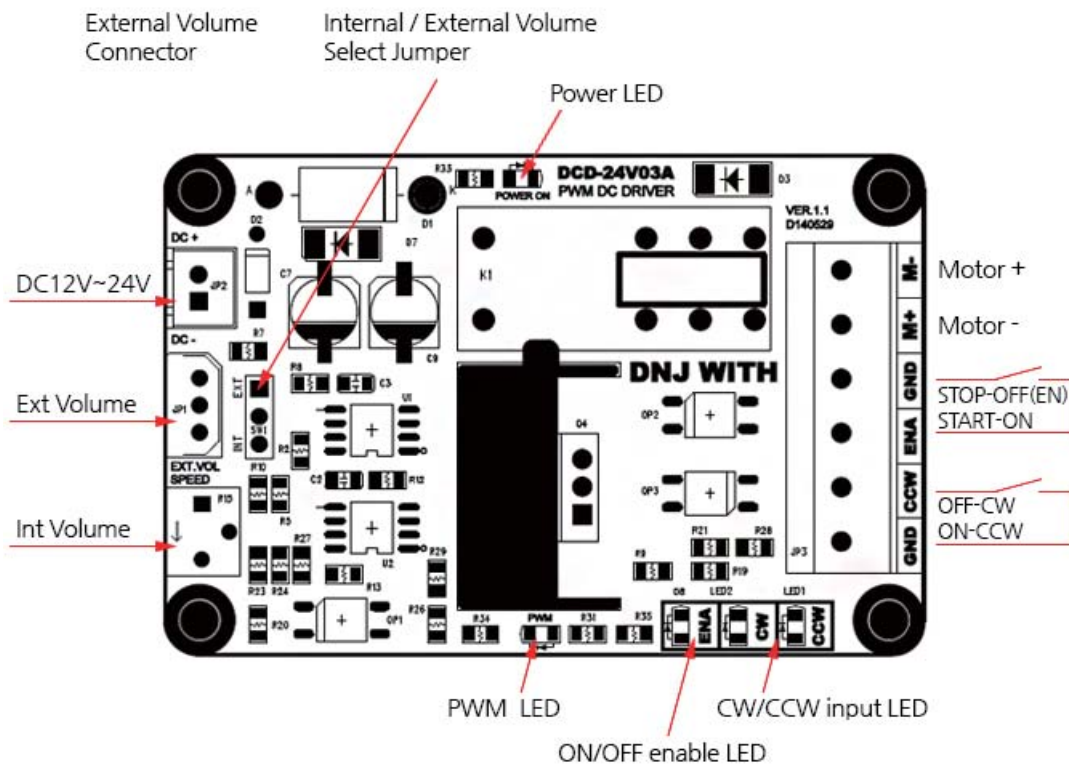
- 사용습도(Operating relative humidity) : 20% ~ 60%
- 사용온도(Operating temperature) : 0°C ~ +50°C



- DC12~24V 모델 / Different Models for DC12~24V.
- ON/OFF 제어용 입력 / Input for ON/OFF Controls.
- CW/CCW 제어용 입력 / Input for CW/CCW Controls.
- 속도(출력) 제어용 볼륨(내장/외장 선택가능) / Volume for Speed(Output) Controls.
(Can be selected internal and external volume.)
- 외장형 볼륨 입력 (별도구매가능) / Input volume external modular (Optional)
- MAX 3A 출력 (다이오드 쇼트시 5A 가능) / MAX 3A Output (5A possible to short the diode)

SPECIFICATION

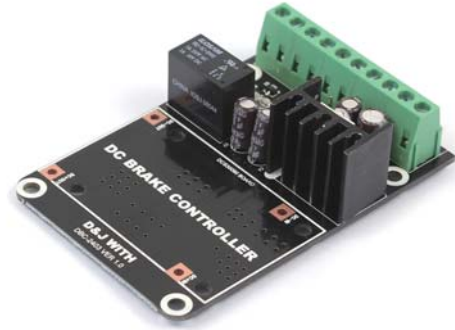
■ Dimension



DBC-2403

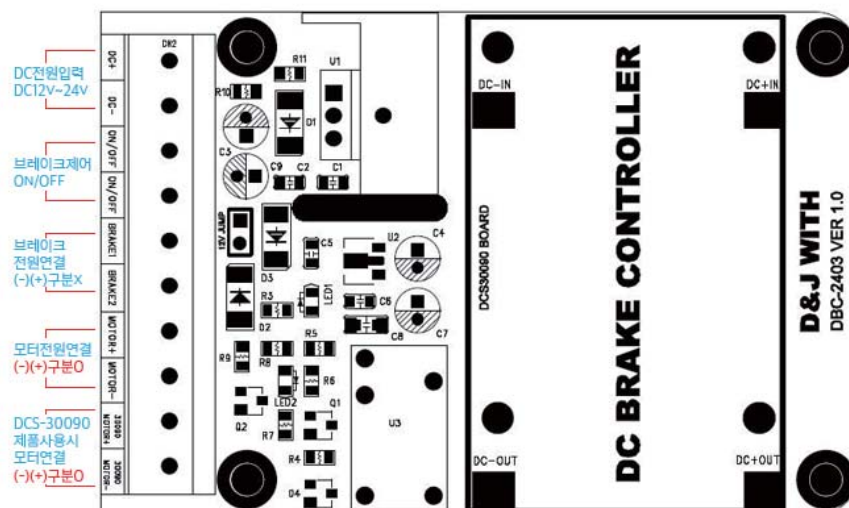
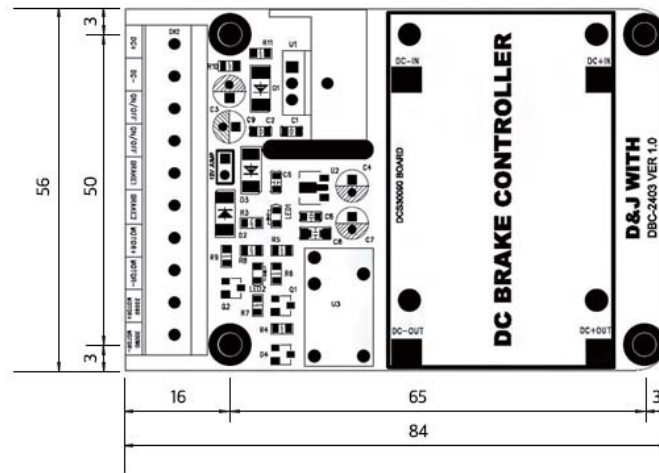
- 사용습도(Operating relative humidity) : 20% ~ 60%
- 사용온도(Operating temperature) : 0℃ ~ +50℃

- DC12V~24V / 3Amax
- ON/OFF 제어용 입력 /Input for ON/OFF Controls
- 가변저항 속도 제어 (내부불륨)
- 속도(출력) 제어용 DC스피드컨트롤러(DSC-30090) 세팅가능



SPECIFICATION

■ Dimension





BLDC MOTOR DRIVER

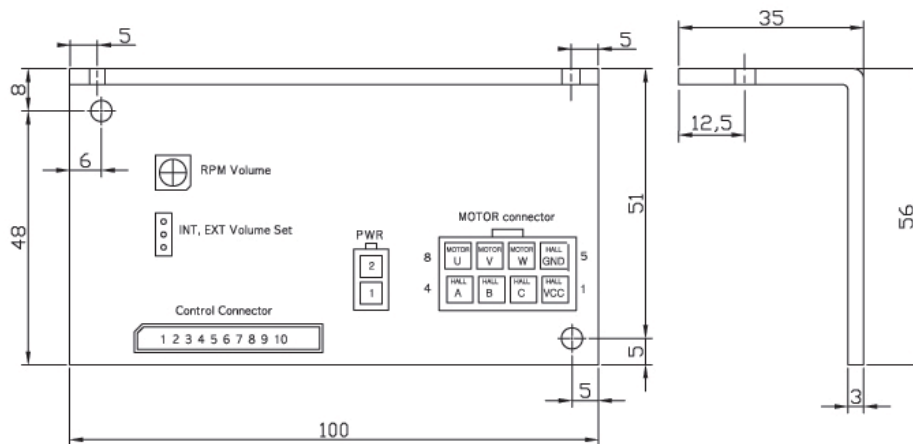
LBD-V

- 사용습도(Operating relative humidity) : 20% ~ 60%
- 사용온도(Operating temperature) : 0℃ ~ +50℃
 - 입력전압 : DC 12V / 24V
 - 제어방식 : Hall IC 제어방식
 - 최대출력 : 120W
 - 전류 : 최대 10 A



SPECIFICATION

Dimension



장비용으로 특화하여 신규 개발한 BLDC 드라이버로서 정역회전, 브레이크 기능과 속도 제어가 가능하고, 최대 10A, 200W급 BLDC까지 제어가 가능한 드라이버. 정격 12v~24v의 홀센서 방식 BLDC의 제어가 가능하며, 10v부터 구동이 가능하다.

기타 기능을 제외한 대신 고수명, 고신뢰성의 BLDC의 기본적인 사양에 최대한 맞추어 장비 적용시 모터와 드라이버의 안전성을 높였으며, 타 모터에도 점퍼세팅으로 사용이 가능하도록 제작함.

I/O Connector : CTRL

핀 번호	색상	신호명	설명
1	검정	12v DC Out	12v DC Out : DC 12v 외부출력
2	회색	5v DC Out	2,3,4번 핀은 외부 볼륨을 이용하여 속도를 조절하기 위한 핀임. 10K ohm의 볼륨을 연결하여 사용을 하고 드라이버의 Jumper가 Ext(아랫쪽의 두핀에 연결)에 접해 있어야 함.
3	보라	볼륨저항값 입력선	
4	파랑	GND	
5	녹색	GND	GND : 컨트롤 커넥터의 전 GND는 공통접지임.
6	노랑	정역회전	회전 방향 설정 및 회전방향 변경, GND에 Short하여 사용.
7	주황	브레이크	BREAK : GND와 Open시 Break, Short시 Break 해제.
8	빨강	START_STOP	모터구동 ON/OFF : GND와 Open시 구동 OFF, Short시 구동 On.
9	갈색	START_STOP	8번 핀과 동일기능 수행 / 차이점은 모터정지시 FAULT LED를 점등함.
10	흰색	GND	GND

* 8번 + GND 또는 9번 + GND를 사용하여 Start/Stop 작동을 하기 위해서는 10번(GND) + 7번(Break)가 우선적으로 Short가 되어있어야 함.

ex) 10번과 7번, 8번이 Short된 상태 → 정지(구동 대기 상태)
10번과 7번 Short, 8번 NC상태 → 구동함.

Connector : MOTOR

핀 번호	1	2	3	4	5	6	7	8
신호명	Vcc	Hall_C(W)	Hall_B(V)	Hall_A(U)	GND	W	V	U
설명	센서전원	센서전원	센서전원	센서전원	Ground	모터전원	모터전원	모터전원

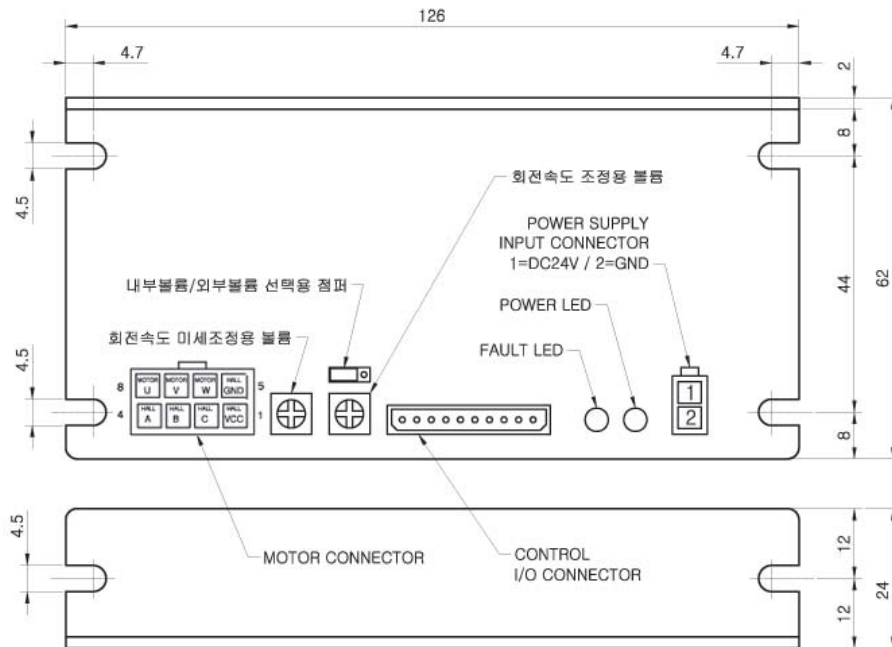
FTBL-V1

- 사용습도(Operating relative humidity) : 20% ~ 60%
- 사용온도(Operating temperature) : 0℃ ~ +50℃



SPECIFICATION

■ Dimension



- FLAT TORQUE 특성(토크보상기능), 과전류 차단 장치 내장(전원 차단후 복귀시 리셋)
- (주)디엔지위드의 DC24V BLDC Motor 제품군 전용으로 자체개발/연속전류 10A, 정격 240W BLDC Motor까지 제어가 가능함.
- Full Analog 설계방식으로 내부 프로그램 오류로 인한 오작동이 전혀 없으며, 외부 노이즈에 매우 강한 특성을 가지고 있음.

■ I/O Connector : CTRL

핀번호	색상	신호명	설명
1	흰색	Hall V OUT	모터 내부의 홀센서 신호 V상 펄스 출력 (모터 1회전당 모터 Pole/2 Pulse)
2	갈색	Hall U OUT	모터 내부의 홀센서 신호 U상 펄스 출력 (모터 1회전당 모터 Pole/2 Pulse)
3	빨강	정,역회전	회전방향 변경 : GND와 Short 시 CW 회전, Open 시 CCW 회전.
4	주황	구동,정지	구동&정지 전환 : GND와 Short 시 모터 구동, Open 시 정지.
5	노랑	브레이크	전기여자 브레이크 기능 : GND와 Short 시 브레이크, Open 시 해제.
6	녹색	GND	GND : 컨트롤 컨넥터의 전 GND는 공통 접지임.
7	파랑	GND	외부볼륨 연결용 GND.
8	보라	볼륨 전압값 입력	외부볼륨 연결용 전압값 입력 라인.
9	회색	볼륨용 전압출력	외부볼륨 연결용 전압 출력 라인.
10	검정	DC5V OUT	DC5V @ 0.1A 의 전압이 출력 라인.

■ Connector : MOTOR

핀번호	1	2	3	4	5	6	7	8
신호명	Vcc	Hall_C(W)	Hall_B(V)	Hall_A(U)	GND	W	V	U
설명	센서전원	센서전원	센서전원	센서전원	Ground	모터전원	모터전원	모터전원

BLD-24-250

- 사용습도(Operating relative humidity) : 20% ~ 60%
- 사용온도(Operating temperature) : 0℃ ~ +50℃



SPECIFICATION

Output power	250W
Continue current	18A
Peak current	19A
Protection current	20A
Input voltage	12V ~ 36V , References motor specifications
Speed control ratio	40:1 , Min speed 45rpm , References motor design
Speed regulation	< 0.6%
I/O signal	CW/CCW , Run/Stop , Speed output , Voltage adjust speed , temperature alarm
Functions	Min/Max speed limit
Speed setting	Internal/External VR speed setting , External voltage adjust speed
Storage temp./Humidity	-20 ~ +85℃ / < 85%
Op. temp./Humidity	0 ~ 65℃ / <85% non-condensing , >80℃ alarm , >85℃ power failure
Dim./Weight	100mm(L) x 126mm(W) x 35mm(H)/550g (without bracket)

◆Any specification change or revised of user manual are subject to change without prior notice.

Connector description

◆I/O connector description				◆Power connector description		
Pos.	Wir. Color	Name	Description	Pos.	Wir. Color	Name
1	Red	+5V	+5V power output for control and external components , max supply 700mA	V+	Red	+V
2	Green	RUN	Motor run , using the switch or external terminal connect to SGND	V-	Black	GND
3	White	BRAKE	Motor immediately stop , using external terminal connect to SGND	◆Motor connector description		
4	Orange	F/R IN	CW/CCW control , using the switch or external terminal connect to SGND	Pos.	Wir. Color	Name
5	Gray	SPEED	Speed output , 12 pulse/r	GND	Black	GND
6	Yellow	ALM OUT	Alarm output , the red LED light	HW	Yellow	Hall sensor HW-(A)
7	Blue	ALM IN	Clear Alarm , external terminal connect to SGND 1 sec or power reset	HV	Gray	Hall sensor HV-(B)
8	Purple	F/R OUT	CW/CCW output , the CW/CCW LED light	HU	Green	Hall sensor HU-(C)
9	Black	SGND	Control signal GND , don't connect to power GND	+5V	Orange	+5V
10	Black	VS GND	VR Speed control GND , don't connect to the other GND terminal	MW	Brown	Motor W-(C) phase
11	Brown	VS	Speed control , VR or voltage input	MV	White	Motor V-(B) phase
12	Red	VR	Speed control , VR voltage output , don't use to other devices	MU	Blue	Motor U-(A) phase

LED , switch , annex description

◆LED description			◆Switch function description				
Color	Name	Description	Switch	Function	ON	OFF	Remarks
Orange	F/R OUT	LED light when motor CCW	1	RUN	Direct run	External control run	
Yellow	F/R IN	CW/CCW input , external control LED will light	2	F/R OUT	CW/CCW output signal	Don't use	
Red	BRAKE	Brake LED indicator	3	F/R IN	Internal control CW	External control CW/CCW	
Green	RUN	Run LED indicator	SPEED	SPEED	(1)-(2)Internal speed	(2)-(3)External speed	Pin 1 2 3(External switch)
Red	ALARM	Alarm LED indicator	◆Annex dimension: MOTOR cable (L)300mm 125℃ 300V 16AGW				
Green	POWER	Power LED indicator	POWER cable (L)300mm 125℃ 300V 16AGW		I/O cable (L)300mm 90℃ 200V 26AGW		



BH-Series

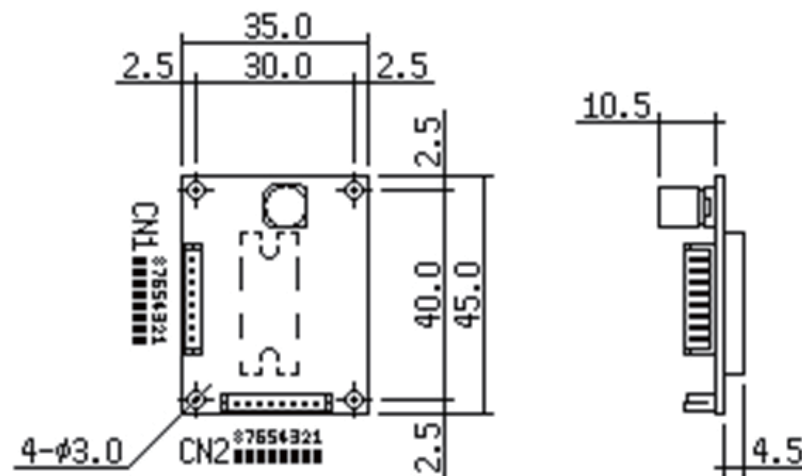
- 사용습도(Operating relative humidity) : 20% ~ 60%
- 사용온도(Operating temperature) : 0℃ ~ +50℃

- 일본 싱크엔지니어링(Think Engineering)사의 BLDC모터 드라이버
- 싱크엔지니어링 BH-Series BLDC모터 전용 드라이버
- 정,역 회전 / START, STOP / FAST STOP / 과부하 방지장치 내장



SPECIFICATION

■ Dimension



■ Connector

CN1	NO.	색 상	명 칭	기 능
	1	하얀색	펄스출력	모터회전에 동기 한 펄스를 출력
	2	초록색	브레이크	OP(개방)에서 구동/G(GND)에서 정지
	3	보라색	PWM신호입력	속도 조절을 위한 PWM신호입력
	4	검정색	GND	2, 3, 5, 6번 접점에 신호를 주기 위한 Ground
	5	노란색	회전방향전환	OP(개방)시, CW / G(GND)시 CCW
	6	주황색	시작	OP(개방)시, 정지 / G(GND)시 구동
	7	파란색	전원입력	DC15V ~ 30V
	8	빨강색		

CN2	NO.	색 상	명 칭	기 능
	1	회 색	출 력	모터코일 A상
	2	보라색		모터코일 B상
	3	파란색		모터코일 C상
	4	초록색	VCC	센서용 전원
	5	노란색	입력	센서입력 A
	6	주황색		센서입력 B
	7	빨강색		센서입력 C
	8	밤 색	GND	GND

BLC-13H05P

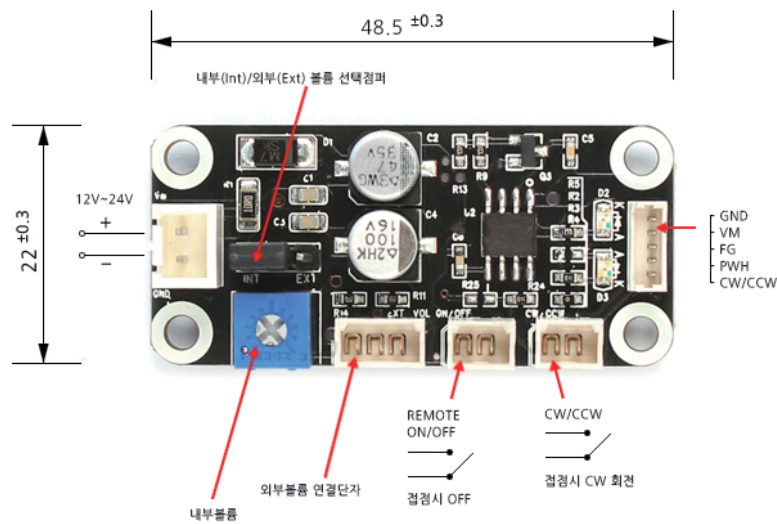
- 사용습도(Operating relative humidity) : 20% ~ 60%
- 사용온도(Operating temperature) : 0℃ ~ +50℃

- 적용모터 : BL2419
- 입력전압 : DC 12V / 24V
- 제어방식 : PWM
- 외부입력 : 가변저항, 정역회전, 구동정지



SPECIFICATION

■ Dimension



브러쉬리스 모터 드라이버 | BLDC Motor Controller

드라이버 내장형 BLDC Motor용 Controller – 모터 내부 Driver를 콘트롤 하는 장치.

■ 전원입력

DC12V ~ DC24V 범위의 전원을 입력 하여야 합니다.
연결하는 모터의 정격 전압과 동일 전압을 입력하시면 됩니다.

■ 속도조절

조절용 드라이버 등으로 내부볼륨을 시계방향(C.W)으로 돌리면 모터의 속도가 증가, 반시계방향(C.C.W) 로 돌리면 모터의 속도가 감소합니다.

■ 외부볼륨(옵션) 사용.

내부볼륨 상단 점퍼를 INT(Default)에서 EXT 위치로 변경한 후 외부볼륨모듈 (별매품)을 연결하면 외부볼륨 속도제어 기능을 사용할 수 있습니다.

■ Remote ON / OFF 제어 기능

ON / OFF 제어 단자에 기본 제공되는 케이블을 삽입 후 케이블 양단에 스위치를 연결하여 사용합니다.

- 스위치 Open 상태 : Motor 구동
- 스위치 Close 상태 : Motor 정지

기본 제공 케이블과 스위치 등을 연결하지 않고 사용시 콘트롤러에 전원만 인가하는 즉시 모터의 구동이 이루어 집니다.

■ CW / CCW 제어 기능

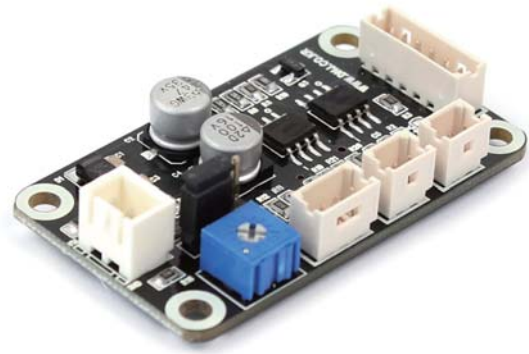
CW / CCW 제어 단자에 기본 제공되는 케이블을 삽입 후 케이블 양단에 스위치를 연결하여 사용합니다.

- 스위치 Open 상태 : C.C.W 방향회전
- 스위치 Close 상태 : C.W 방향회전

BLC-22H06P

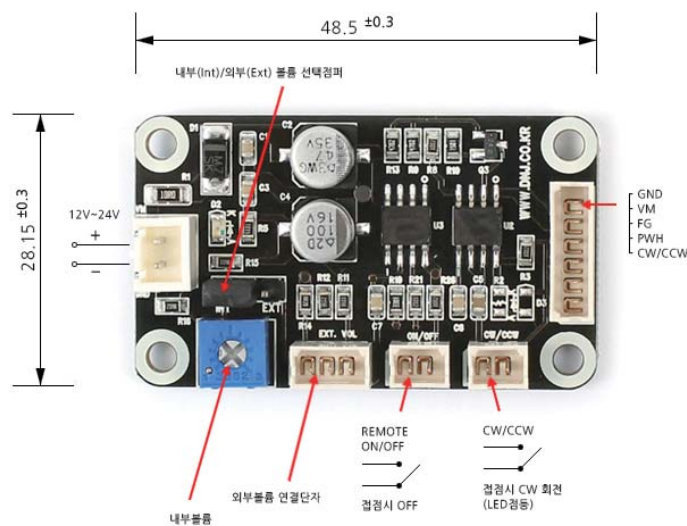
- 사용습도(Operating relative humidity) : 20% ~ 60%
- 사용온도(Operating temperature) : 0°C ~ +50°C

- 적용모터 : BL3640
- 입력전압 : DC 12V / 24V
- 제어방식 : PWM
- 외부입력 : 가변저항, 정역회전, 구동정지



SPECIFICATION

■ Dimension



브러쉬리스 모터 드라이버 | BLDC Motor Controller

드라이버 내장형 BLDC Motor용 Controller – 모터 내부 Driver를 콘트롤 하는 장치.

■ 전원입력

DC12V ~ DC24V 범위의 전원을 입력 하여야 합니다.
연결하는 모터의 정격 전압과 동일 전압을 입력하시면 됩니다.

■ 속도조절

조절용 드라이버 등으로 내부볼륨을 시계방향(C.W)으로 돌리면 모터의 속도가 증가, 반시계방향(C.C.W)로 돌리면 모터의 속도가 감소합니다.

■ 외부볼륨(옵션) 사용.

내부볼륨 상단 점퍼를 INT(Default)에서 EXT 위치로 변경한 후 외부볼륨모듈 (별매품)을 연결하면 외부볼륨 속도제어 기능을 사용할 수 있습니다.

■ Remote ON / OFF 제어 기능

ON / OFF 제어 단자에 기본 제공되는 케이블을 삽입 후 케이블 양단에 스위치를 연결하여 사용합니다.

- 스위치 Open 상태 : Motor 구동

- 스위치 Close 상태 : Motor 정지

기본 제공 케이블과 스위치 등을 연결하지 않고 사용시 콘트롤러에 전원만 인가하는 즉시 모터의 구동이 이루어 집니다.

■ CW / CCW 제어 기능

CW / CCW 제어 단자에 기본 제공되는 케이블을 삽입 후 케이블 양단에 스위치를 연결하여 사용합니다.

- 스위치 Open 상태 : C.C.W 방향회전

- 스위치 Close 상태 : C.W 방향회전

BLC-22H11P

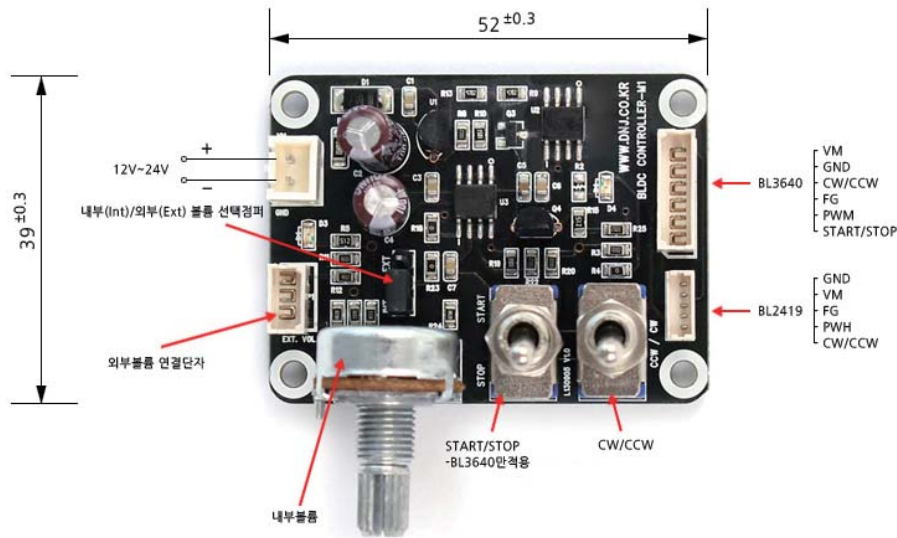
- 사용습도(Operating relative humidity) : 20% ~ 60%
- 사용온도(Operating temperature) : 0℃ ~ +50℃

- 적용모터 : BL2419, BL3640
- 입력전압 : DC 12V / 24V
- 제어방식 : PWM
- 외부입력 : 가변저항, 정역회전, 구동정지(BL3640 6선 제품에 사용)



SPECIFICATION

■ Dimension



브러쉬리스 모터 드라이버 | BLDC Motor Controller

드라이버 내장형 BLDC Motor용 Controller – 모터 내부 Driver를 콘트롤 하는 장치.

■ 전원입력

DC12V ~ DC24V 범위의 전원을 입력 하여야 합니다.
연결하는 모터의 정격 전압과 동일 전압을 입력하시면 됩니다.

■ 속도조절

조절용 드라이버 등으로 내부볼륨을 시계방향(C.W)으로 돌리면 모터의 속도가 증가, 반시계방향(C.C.W) 로 돌리면 모터의 속도가 감소합니다.

■ 외부볼륨(옵션) 사용.

내부볼륨 상단 점퍼를 INT(Default)에서 EXT 위치로 변경한 후 외부볼륨모듈 (별매품)을 연결하면 외부볼륨 속도제어 기능을 사용할 수 있습니다.

■ Remote ON / OFF 제어 기능

ON / OFF 제어 단자에 기본 제공되는 케이블을 삽입 후 케이블 양단에 스위치를 연결하여 사용합니다.

– 스위치 Open 상태 : Motor 구동

– 스위치 Close 상태 : Motor 정지

기본 제공 케이블과 스위치 등을 연결하지 않고 사용시 콘트롤러에 전원만 인가하는 즉시 모터의 구동이 이루어 집니다.

■ CW / CCW 제어 기능

CW / CCW 제어 단자에 기본 제공되는 케이블을 삽입 후 케이블 양단에 스위치를 연결하여 사용합니다.

– 스위치 Open 상태 : C.C.W 방향회전

– 스위치 Close 상태 : C.W 방향회전