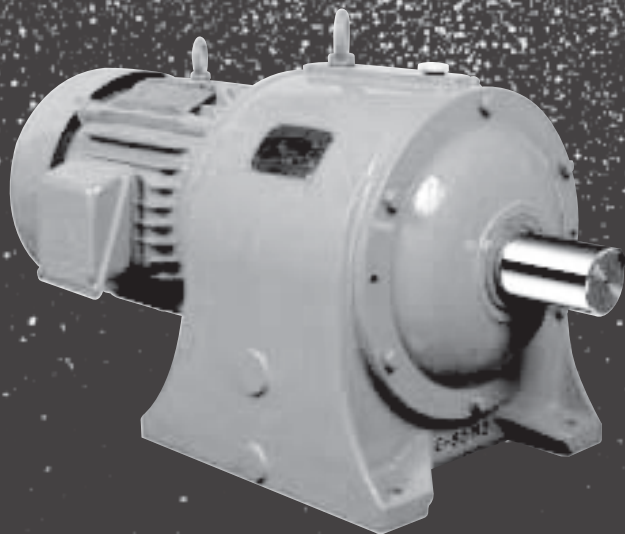


기어드모터의 강자

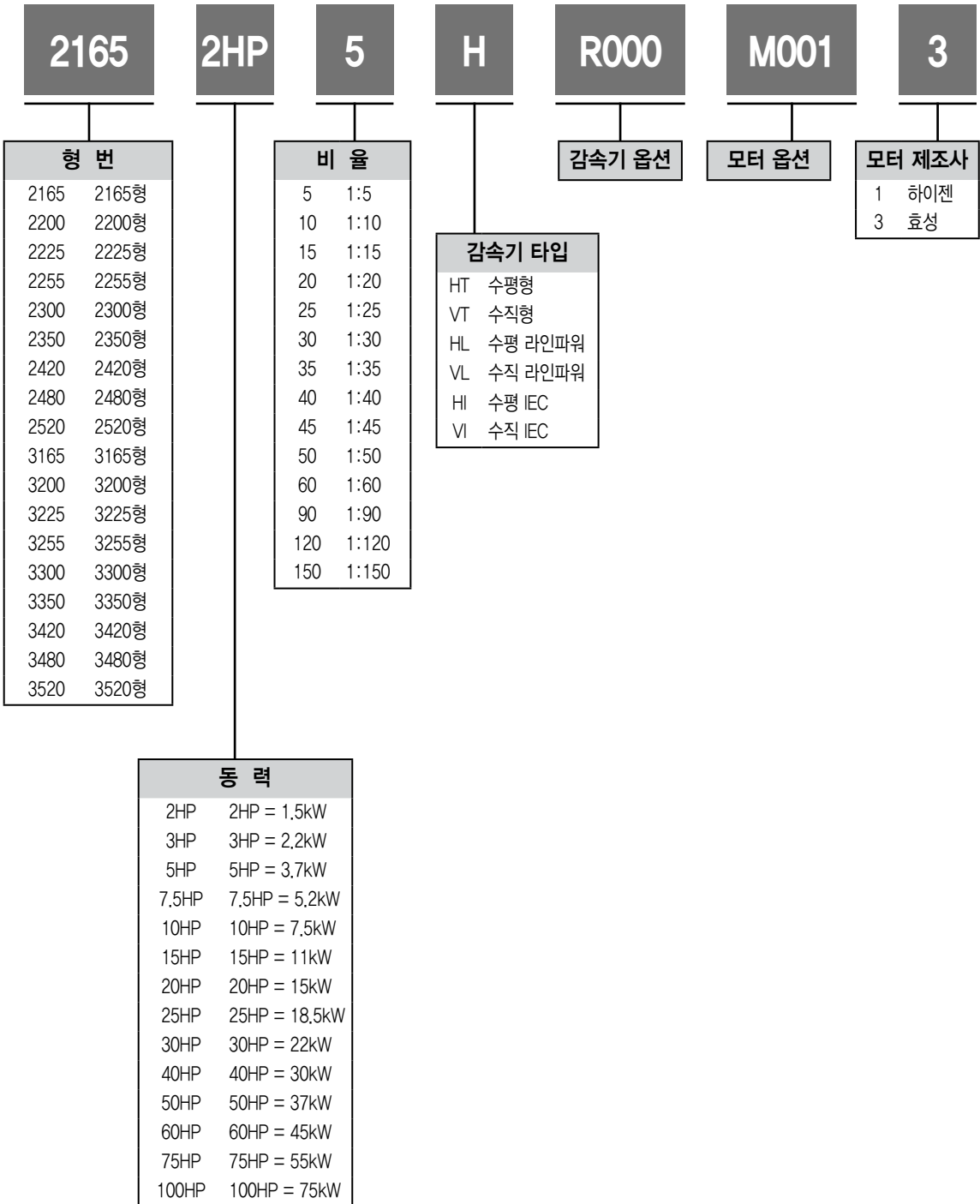


SUPER MAX!

목차 (INDEX)

1. SUPER MAX 기어드 모터의 특징
2. SUPER MAX의 종류
3. SUPER MAX의 구조
4. SUPER MAX의 선택 및 사용에 따른 참고자료
 - 피동기계부하분류표
 - 축단하중(O.H.L)검토
 - 모터의 관성모멘트
 - 주유 및 설치
5. 마그네틱 디스크 브레이크
6. 모터
7. SUPER MAX 외형 치수표
[2HP(1.5kW)~100HP(75kW)]

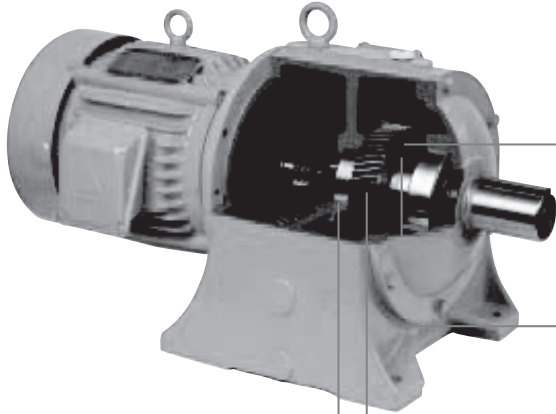
SM



SPECIAL FEATURE

SUPER MAX GEARED MOTOR의 특징

종래의 감속기에 비하여 진동을
30% 감소, 소음 10dB이상 감소,
기어 소재는 특수강을
사용하였으며 가공 후 전체침탄 및
고속회전축 기어는 연마 실시



(1) MOTOR

고효율, 절전형의 SUPER-MAX 전용으로 설계된 F종 모터 채용

(2) PINION & GEAR

(주)삼양감속기에서 독자적으로 축적된 기술로 피니언과 기어의 수명을 동일하게 하는 신설계 공법을 적용한 저소음·고효율·긴수명을 실현하였습니다.

(3) BEARING

자동조심 로울러 베어링과 테이퍼 로울러 베어링을 채용하여 감속기를 분해, 조립할 경우 Adjusting Plate에 의해 간단히 조정할 수 있습니다.

(4) 운할

신기구 채용으로 비말운할방법을 채용, 일반 기어드 모터에 비하여 유량 10% 감소, 설치 경사각도 20°까지 가능

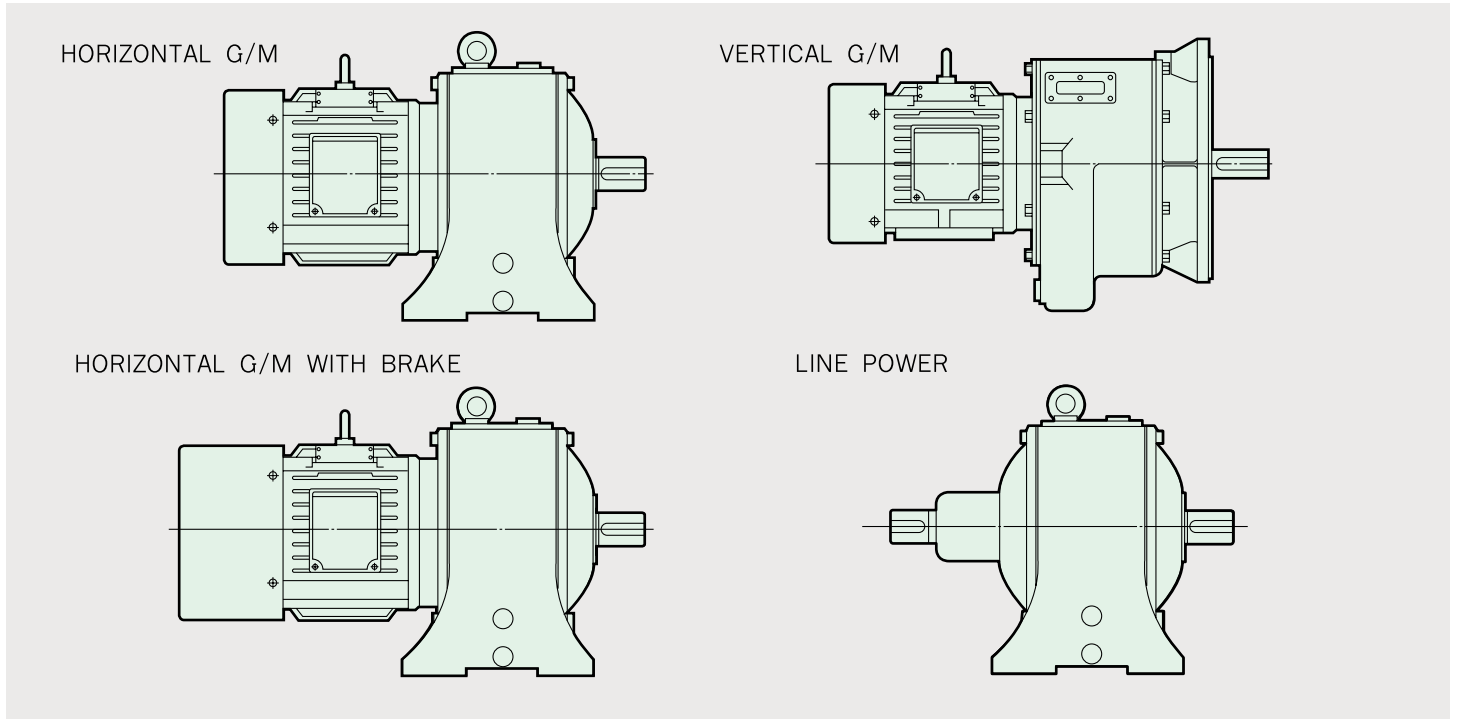
SM Duty Table

동력 기어비	1.5kW (2HP)			2.2kW (3HP)			3.7kW (5HP)			5.5kW (7.5HP)			7.5kW (10HP)			11kW (15HP)			15kW (20HP)			18.5kW (25HP)			22kW (30HP)			30kW (40HP)			37kW (50HP)		45kW (60HP)		55kW (75HP)		75kW (100HP)	
	HT	LP	VT	HT	LP	VT	HT	LP	VT	HT	LP	VT	HT	LP	VT	HT	LP	VT	HT	LP	VT	HT	LP	VT	HT	LP	VT	HT	LP	HT	LP	HT	LP	HT	LP			
5	-																																					
10																																						
15				2165		2200																																
20	2165																																					
25																																						
30				2200		2225																																
35																																						
40																																						
45	3165																																					
50				3200																																		
60																																						
80	-						3225																															
85	-																																					
90	3225																																					
95	-																																					
100	-			3225																																		
120	-																																					
150	-						3300			3300			3350																									

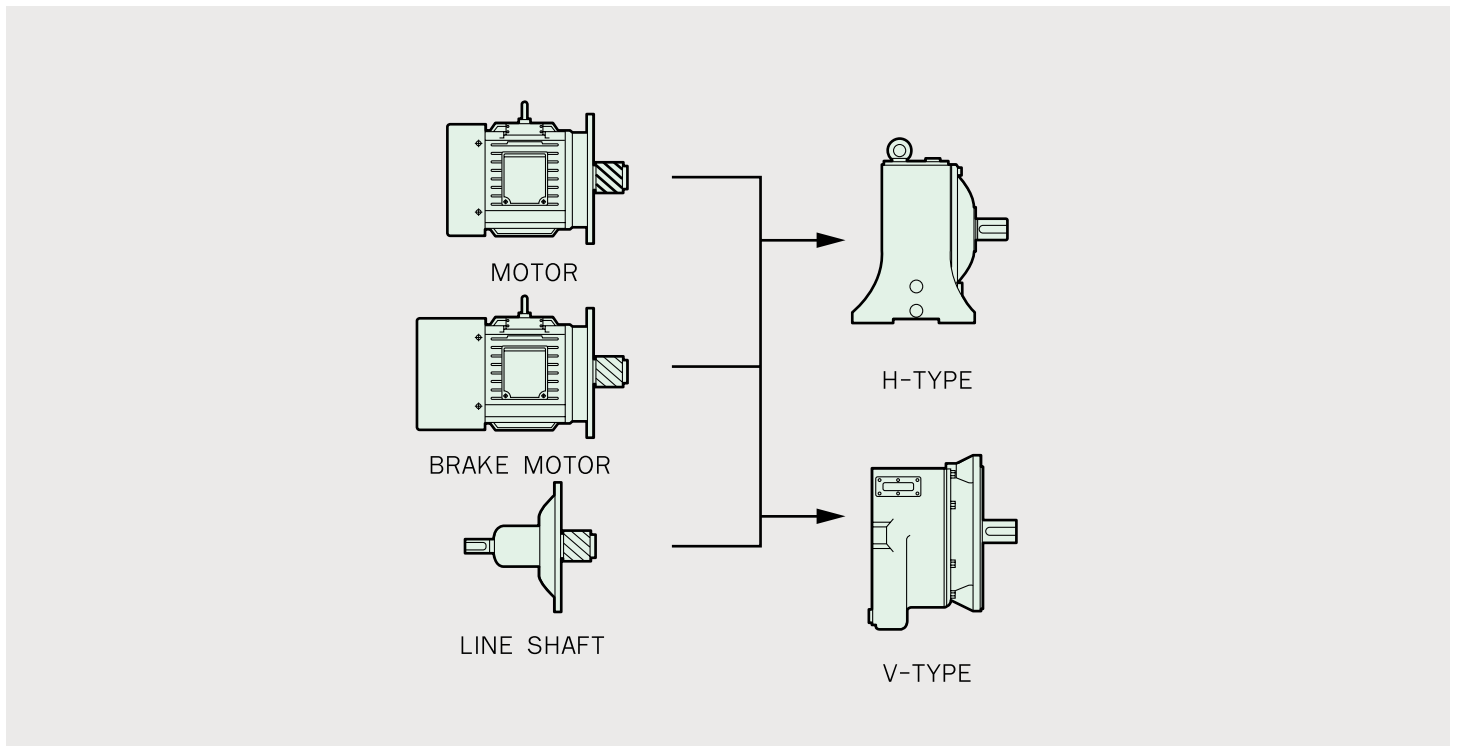
주1. 입력 회전수 : 1800 rpm 기준

주2. S.F = 1.0 기준 (1이상을 필요한 경우 연구소에 문의 바랍니다.)

SUPER MAX SERIES

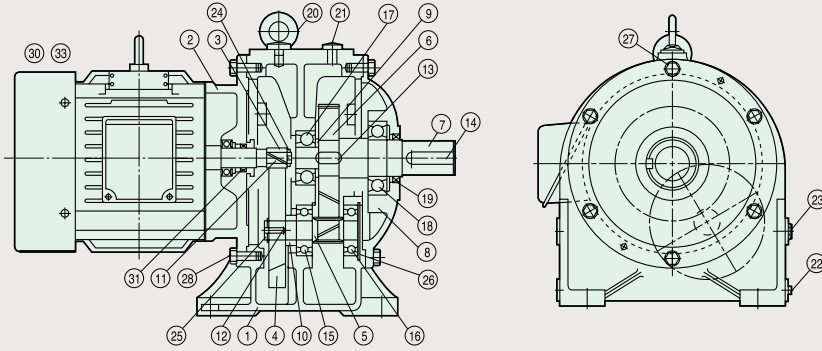


MODULE화에 따른 다양한 연결방식



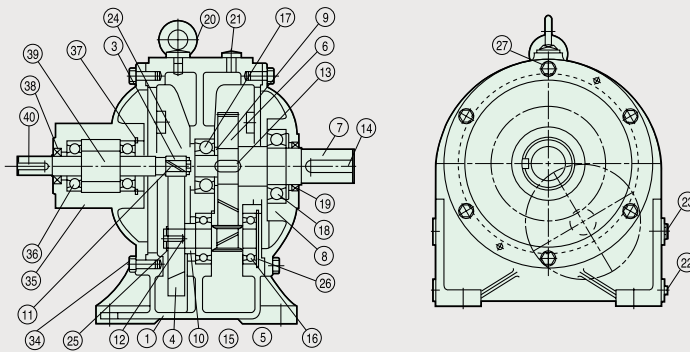
구조도면

HORIZONTAL TYPE



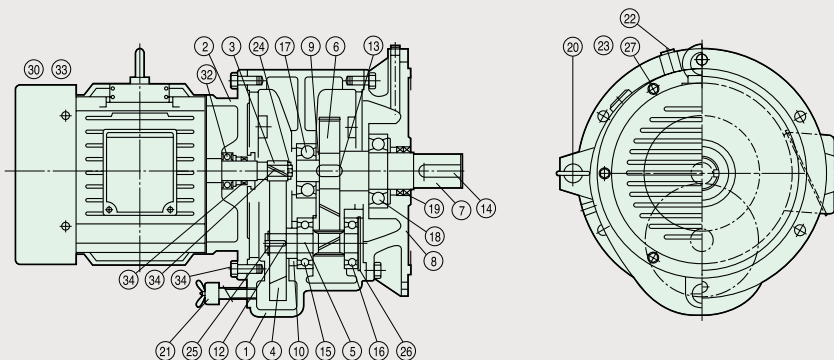
1. Case
2. Motor Flange
3. 1st Pinion
4. 1st Gear
5. 2nd Pinion Shaft
6. 2nd Gear
7. Output shaft
8. Flange
9. Spacer
10. Spacer
11. Inspection Cover
12. 1st Pinion Key
13. 2nd Pinion Shaft Key
14. Output Shaft Key
15. Output Shaft Key

LINE POWER TYPE



16. 2nd Pinion Shaft Bearing
17. 2nd Pinion Shaft Bearing
18. Output Bearing
19. Output Bearing
20. Output Oil Seal
21. Eye Bolt
22. Air Vent
23. Drain Plug
24. Oil Level Gauge
25. Snap Ring
26. Snap Ring
27. Snap Ring
28. Hex.Bolt.&S/W
29. Hex.Bolt.&S/W

VERTICAL TYPE



30. Hex.Bolt.&S/W
31. Name Plate
32. Motor F. Bearing
33. Motor R. Bearing
34. Hex. Bolt & S/W
35. Line Power Cover
36. Bearing
37. Snap Ring
38. Oil Seal
39. Line Power Shaft
40. Key

피동기계 부하 분류표

피동기계	하중 부하	피동기계	하중 부하	피동기계	하중 부하	피동기계	하중 부하	피동기계	하중 부하
Agitato pure liquids.....U liquids and solids.....MS liquids-Variable density.....U		sugar ○.....MS		Lumber industry brakers-hydraulic- mechanical.....MS		cement kilns ○.....MS		rotary gear type.....U	
Blowers centrifugal.....U lobe.....MS vane.....MS		Dredges cable reels.....MS conveyor.....MS cutter head drive ○.....HS lig drives.....HS maneuveringwinches.....MS pumps.....MS screen drive.....HS stackers.....MS utility winches.....MS		burner conveyor.....MS chain saw and drag.....HS chain transfer.....HS craneway transfe.....MS de-barking drum.....HS edger feed.....MS gang feed.....MS green chain.....MS live rolls.....HS log deck.....HS log houl-incline.....HS log houl-well type.....HS log turning device.....HS main log conveyor.....MS off bearing rolls.....MS planer feed chain.....MS planer floor chain.....MS planer tilting hoist.....MS re-saw merry-go-round conveyor.....MS roll cases.....HS slab conveyor.....HS small waste conveyor- chain.....MS sorting table.....MS tipple hoist conveyor.....MS tipple hoist drive.....MS transfer conveyors.....MS transfer rolls.....MS tray drive.....MS trimmer feed.....MS waste conveyor.....MS		dryers and coolers ○.....MS kilns, other than cement.....MS pebble ○.....MS rod ○ plain.....MS wedge bar.....MS tumbling barrels.....HS		lobe, vane.....U	
Brewing and distilling botting machinery.....U brew kettles-continuous duty.....U cookers-continous duty mash tubs-continous duty.....U scale hopper-frequent.....U starts.....MS		Dry dock cranes main hoist△ auxiliary hoist.....△ boom, luffing.....△ rotaing, swing or slew.....□ tracking, drive wheels.....☆		conveyor.....MS escators.....U freight.....MS gravity dischargy.....U man lifts.....▲ passenger.....▲		Mixer concrete mixers- continous.....MS concrete mixers- intermittent.....MS constant density.....U variable dentisty.....MS		Rubber and plastis industries crackers ○.....HS laboratory equipment.....MS mixing mills ○.....HS refiners ○.....MS rubber calenders ○.....MS rubber mill-2 on line ○.....MS rubber mill-3 on line ○.....U sheeter ○.....MS tire building machines.....▲ tire and tube press openers.....▲ tubers and strainers ○.....MS warming mill ○.....MS	
Can filling machinesU cane knivesMS Car dumpersHS Car PullersMS ClarifiersU ClarifiersU Clay working machinery brik press.....HS briquette machine.....HS clay working machinery.....HS Pug mill.....MS		Elevators bucket-uniform load.....U bucket-heavy load.....MS bucket-continous.....U centrifugal dischargy.....U escators.....U freight.....MS gravity dischargy.....U man lifts.....▲ passenger.....▲		re-saw merry-go-round conveyor.....MS roll cases.....HS slab conveyor.....HS small waste conveyor- chain.....MS sorting table.....MS tipple hoist conveyor.....MS tipple hoist drive.....MS transfer conveyors.....MS transfer rolls.....MS tray drive.....MS trimmer feed.....MS waste conveyor.....MS		Oil industry chillers.....MS oil well pumping.....▲ paraffin filter press.....MS rotary kilns.....MS		Sand mullerMS Sewage disposal equipment bar screens.....U chemical feeders.....U collectors.....U dewatering screws.....MS scum breakers.....MS slow or rapid mixers.....MS thickeners.....MS vacuum filters.....MS	
CompressorsMS centrifugal.....U lobe.....MS reciprocating multi-cylinder.....MS single-cylinder.....MS		Fans centrifugal.....U cooling towers induced draft.....▲ forced draft.....▲ induced draft.....MS large, mine, etc.....MS large, industrial.....MS light, small diameter.....U		Machine tools bending roll.....MS punch press-gear notching press-belt.....HS driven.....▲ plate planers.....HS other machine tools tapping machine.....HS main drives.....MS auxiliary drives.....U		Paper mills agitator, (mixers).....MS hydraulic.....MS barker-mechanical.....MS barking drum.....HS beater and pulper.....MS bleacher.....U calendar.....MS calendar-super.....HS converting machine except cutters, platers.....MS conveyors.....U couch.....MS cutters-platers.....HS cylinders.....MS dryers.....MS felt stretcher.....MS felt whipper.....HS jordans.....HS log haul.....HS presses.....U pulp machine reel.....MS stock chest.....MS suction roll.....U washers and thickeners.....MS winders.....U		Screening air washing.....U rotary-stone or gravel.....MS taveling water intake.....U	
conVeyors-uniformly loaded or fed apron.....U assembly.....U belt.....U bucket.....U chain.....MS flight.....U oven.....U screw.....U		Feeders apron.....MS belt.....MS disc.....U reciprocating.....HS screw.....MS		Metal mills draw bench carriage and main drive.....MS pinch, dryer and scrubber rolls-reversing.....▲ slitters.....MS table conveyor non-reversing group drives.....MS individual drives.....HS reversing.....▲ wire drawing and Flattening machine.....MS wire winding machine.....MS		Printing presses▲ Pullers barge haul.....HS Pumps centrifugal.....U proportioning.....MS reciprocating single acting: 3 or more cylinders.....MS double acting: 2 or more cylinders.....MS single acting: 1 or 2 cylinders.....▲ double acting: single cylinder.....▲		Slab pusherMS steering gear▲ StokersU Sugar industry cane knives ○.....MS crushers ○.....MS mills ○.....MS Textile industry batchers.....MS calenders.....MS cards.....MS dry cans.....MS dryers.....MS dyeing machinery.....MS knitting machines.....▲ looms.....MS mangles.....MS nappers.....MS pads.....MS range drives.....▲ slashers.....MS soapers.....MS spinners.....MS tenter frames.....MS washers.....MS winders.....MS Windlass▲	
Conveyors-heavy duty apron.....U assembly.....U belt.....MS bucket.....MS chain.....MS flight.....U live roll.....▲ oven.....MS reciprocating.....HS screw.....MS shaker.....HS		Food industry beet slicer.....MS cereal cooker.....U dough mixer.....MS meat grinders.....MS Generatorors-not weldingU Hammer millsHS Hoist heavy duty.....HS medium duty.....MS skip hoist.....MS Laundry washer reversing.....MS Laundry tumblersMS Line shafts driving procesing equipment.....MS light.....U		Mills-rotary type ball.....MS					
Crusher ore.....HS stone.....HS									

■ U Uniform load (균일하중)
MS Moderte shock load (중 정도 하중)
HS Heavy shock load (중 정도 하중)
▲삼양감속기에 문의바랍니다.

○ 1일 24시간 연속운전 S • F 적용
△ S • F = 1.0
□ S • F = 1.25
☆ S • F = 1.5

축단하중(OVER HUNG LOAD)의 검토

감속기 출력축과 사용할 피동기계와의 연결시 체인기어, V벨트, 기어등을 이용하여 동력전달을 해야 하는 경우에는 출력축에 굽힘하중이 작용하며, 출력축에 설치된 베어링에도 굽힘하중 만큼의 하중이 작용하므로 이 경우에는 필히 축단하중을 검토하여야 하며 이 검토에 따라 감속기를 선택하여야 합니다.

단, 기어카프링, 체인카프링 또는 기타카프링으로 출력축과 동일축선상에서 연결하는 경우에는 축단하중을 검토할 필요가 없습니다.

표 1. 출력축 (저속축)의 허용 축단하중 (O.H.L)

단위 : kg · f

R.P.M	kw	1.5	2.2	3.7	5.5	7.5	11	15	22	30	37
5		2300	3020	4250	5555	6750	8825				
10		1450	1900	2675	3500	4250	5560	6750			
15		1105	1450	2040	2675	3240	4250	5150	6750		
20		915	1200	1680	2205	2675	3500	4250	5560	6750	
25		790	1035	1450	1900	2300	3020	3655	4800	5820	6750
30		700	915	1280	1680	2040	2675	3240	4250	5150	5985
40		575	755	1060	1390	1680	2205	2675	3500	4250	4940
50		495	650	915	1200	1450	1900	2300	3020	3655	4250
60		435	575	810	1060	1280	1680	2040	2675	3240	3760
80		360	475	670	875	1060	1390	1680	2205	2675	3100
100		310	410	575	755	915	1200	1450	1900	2300	2675
120		275	360	510	670	810	1060	1280	1680	2040	2370
150		238	312	440	575	695	915	1105	1450	1750	2040
180		210	276	390	510	615	810	980	1280	1550	1810
200		196	258	363	475	575	755	915	1200	1450	1680
250		170	223	313	410	496	650	790	1035	1250	1450
300		149	197	276	362	438	575	700	915	1105	1280

$$O.H.L(kg) = \frac{P \times 974 \times 2}{N \times R} \times \frac{Cf}{Lf} \times s.f$$

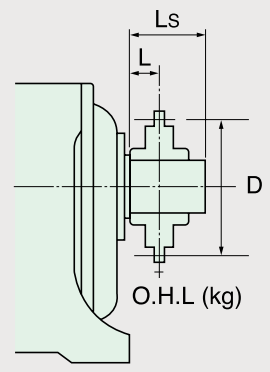
- P = 전달출력 (kw)
- N = 출력축회전수 (rpm)
- R = CHAIN SPROCKET, PULLEY, GEAR 의 피치원직경 (m) = D
- Cf = 구동방법에 의한 계수
- Lf = 하중위치에 의한 계수
- s.f = 부하계수 (기본설계 : 1.4)

표 1. Cf: 구동방법의 계수

SINGLE CHAIN	DOUBLE CHAIN	GEAR	V-BELT	FLAT BELT
1.00	1.25	1.25	1.50	2.50

표 2. Lf: 하중위치의 계수

0.3Ls	0.5Ls	0.7Ls	0.9Ls
1.10	1.00	0.83	0.70



상기식에서 구한 O.H.L가 허용 O.H.L 보다 작으면 확인하여 주십시오.
 O.H.L에 적용하는 부하계수는, Sf ≤ 1.4 인지만, 사용상 부하계수가 크게 작용하는 경우에는 한단계 위의 형번으로 선택해야 하므로 당사에 문의하여 주시기 바랍니다.

- (사용조건)
- 용도 CONVEYOR(Sf = 1.0)
 - 출력 3.7kw
 - 입.출력회전수 1800/60 rpm
 - 감속비 1/30
 - 연결방법 SINGLE CHAIN 구동
 - (CHAIN SPROCKET의 피치원 직경 D = 0.152 (m))
 - 하중위치 출력축의 중앙 (0.5Ls)

축단하중의 계산식

$$\text{축단하중 (kg} \cdot \text{f)} = \frac{3.7 \times 974}{60 \times 0.076} \times \frac{1 \times 1.0}{1} \approx 790.3 \text{ kg} \cdot \text{f}$$

∴ 사용 O.H.L = 790.3 < 810이므로 상기의 사용 조건에서는 당사 표준제품인 3.7kw 1/30 (FR 2225)사용 가능합니다.

표준사양

		SUPER MAX SERIES	
		GEARED MOTOR	
감속기	감속방식	외접치차방식(헬리칼치차) 2단감속(감속비 1/5~1/30) 3단감속(감속비 1/40~1/60)	
	윤활방식	유욕 (OIL BATH)	
	축단KEY	KS B 1311-84	
전동기	전원	3 ϕ , 220/380 V, 440 V, 60Hz	
	보호형식	전폐외선형 IP44	
	시간정격	연속	
	단자박스위치	축단에서 볼때 좌측	
	리드선	3本 (3.7 kw-4P 2.2 kw-6P) 6 本스타델타시동 (5.5~37 kw-4P 1.5 kw-6P)	
	주위온도·습도	-30°C ~ 40°C 100%이하 (브레이크 부착시 85% 이하)	
설치조건	고도	표고 1000m이하	
	설치장소	옥내	

주유와 교환

SUPER MAX GEARED MOTOR는 납품시 윤활유를 주입하여 납품하고 있습니다. 사용전에 필히 윤활유 주입상태를 점검하여 주시기 바랍니다.

- ※ 윤활유의 선택
윤활유는 기계의 소음·발열 및 수명 등에 많은 작용을 하므로, 하기 주유일람표를 참조하시어 절기에 따라 지정 윤활유를 사용하여 주시기 바랍니다.

주유일람표

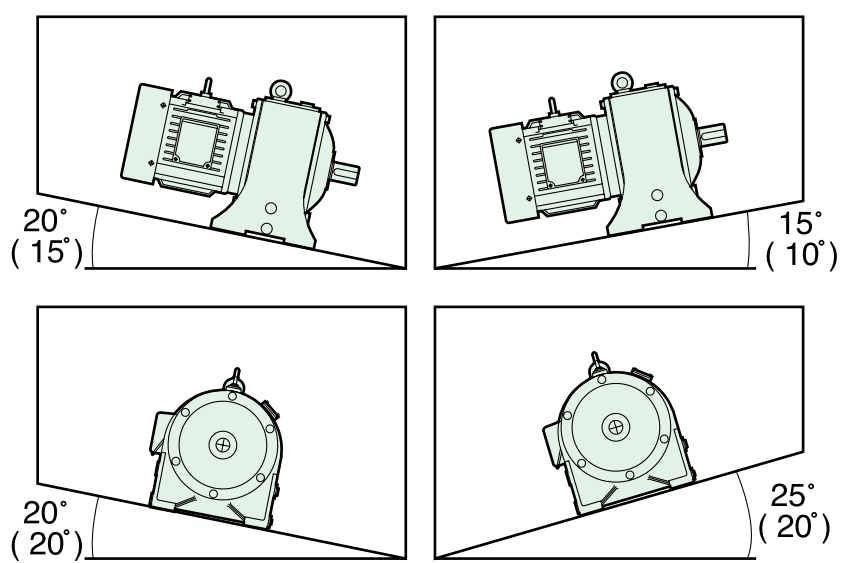
형식 \ 주위온도	메 이 커	동 절 기	하 절 기
Small Box (소형)	Shell	Omala 150	Omala 220
	Mobil	Gear 629	Gear 630
	Caltex	Meropa 150	Meropa 220
Medium Box (중형)	Shell	Omala 220	Omala 320
	Mobil	Gear 630	Gear 632
	Caltex	Meropa 220	Meropa 320
Large Box (대형)	Shell	Omala 320	Omala 680
	Mobil	Gear 632	Gear 636
	Caltex	Meropa 320	Meropa 680

- ※ 유 량
1) 운전전에 유면계 중앙까지 오일이 들어 있는지 확인하여 주시기 바랍니다.
2) 정기적으로 유면계를 확인, 윤활유 부족시 보충하여 주시기 바랍니다.

- ※ 오일교환
설치운전 1개월후에 초기교환 실시후 매 2500 시간정도에 내부세척 후 새로운 오일로 교환하여 주십시오.

설치방법

- ① 일반기계와 동일한 수평 또는 수평에 가깝도록 설치 하여 주십시오.
 - ② 회전방향의 좌우 관계없이 사용 가능합니다.
 - ③ 경사면에 설치할 경우 우측 그림을 참조하시기 바랍니다.
 - ④ 지시된 경사각도 이상으로 설치할 경우 당사에 문의바랍니다.
- ※ 20HP이상의 GEARED MOTOR는 () 안의 각도범위 내에서 설치하여 주시기 바랍니다.



브레이크 모터

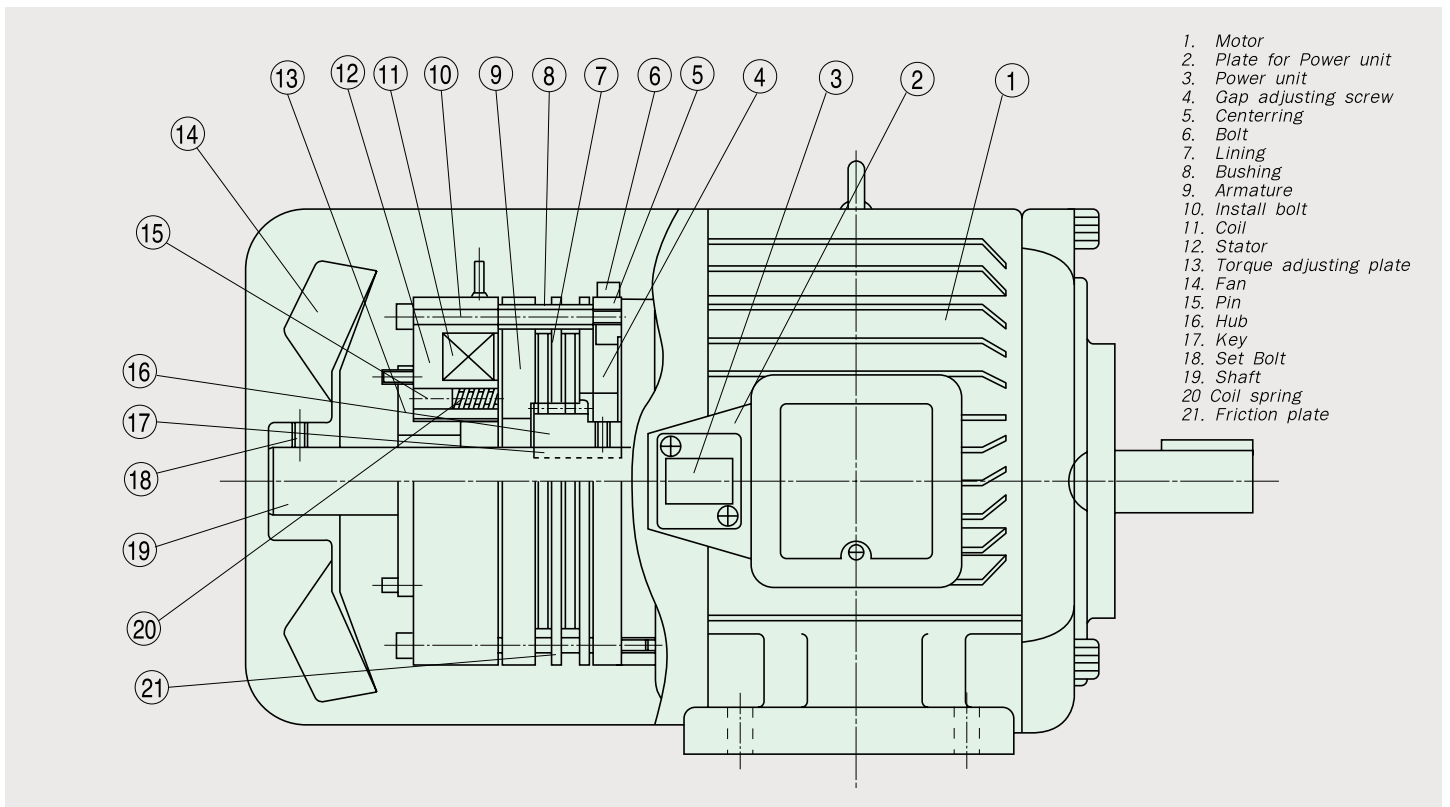
1. SBB BRAKE MOTOR

1) 구조 (CONSTRUCTION)

• SBB브레이크 모터 시리즈는 모터부와 브레이크부로 구성되어 있고 브레이크부는 무여자 작동형의 건식 다판 직류 브레이크입니다.

• Hanshin brake motor, SBB brake motor series are three phase induction motors with dry typed multiple disc, spring actuated electromagnetic friction brake.

SBB형 브레이크모터 구조도 [Basic construction of SBB brake motor]



1. Motor
2. Plate for Power unit
3. Power unit
4. Gap adjusting screw
5. Centerring
6. Bolt
7. Lining
8. Bushing
9. Armature
10. Install bolt
11. Coil
12. Stator
13. Torque adjusting plate
14. Fan
15. Pin
16. Hub
17. Key
18. Set Bolt
19. Shaft
20. Coil spring
21. Friction plate

2) 동작 (Operation)

• 브레이크 모터에 전원을 공급하면 직류전원장치에서 정류된 전류가 브레이크 코일에 흘러 브레이크 스테타에 강한 자기력을 발생하여 아마추어가 순간적으로 흡입되며 페이싱과의 사이에 공극이 생겨 브레이크가 개방되므로 모터는 회전하게 됩니다. 다음으로 전원을 차단하면 마그네트 코일의 흡입력이 소멸되어 아마추어는 브레이크 스프링의 압력에 의해 페이싱에 밀착되며 부하를 급속히 제동시킵니다.

• When the brake motor is switched on, D.C is applied to the magnet coil through power unit, and the armature is pulled in a moment. Then the brake is released and the motor start rotating. When the brake motor is switched off, friction between brake shoe and armature by brake spring is forced, Then brake is applied.

브레이크 모터

3) 특징 및 사양 (Features and Specification)

- SBB BRAKE MOTOR 는 0.75kw~37kw급으로 안전용 BRAKE MOTOR로서 최적의 특성을 갖도록 제작되었습니다.
- 1. BRAKE의 제동 TORQUE가 크며 안전 BRAKE로서 장시간의 사용에도 안정된 제동특성을 갖고 있습니다.
- 2. BRAKE 설치 부분에서 제동 TORQUE를 조정 할 수 있으며 틈새(GAP)조정을 간단히 처리 할 수 있습니다.
- 3. 수명이 길고 보수가 간단하도록 설계되어 있습니다.

The capacity of SBB brake motor is from 0.75kw to 37kw.

1. Spring-brake-type permits constantly stable and quiet operation characteristic.
2. Easily adjustable gap and easy maintenance assures a long working life.
3. Greater friction surface than that of conventional brakes assures an exceptionally long life.

MOTOR				BRAKE					
Type	Frame	Out(kw)		Voltage Frequency	Type	TORQUE (kg.m)	Voltage	Capacity (w)	Power Unit
		4P	6P						
전폐형 (Totally enclosed fan cooled type)	80	0.75	0.4	AC220/380 60HZ (AC440V 60HZ)	SBB-0.9	0.9	DC90V (DC190V)	25	HD-10B (HD-20B)
	80L	1.5	0.75		SBB-0.18	1.8		35	
	100L	2.2	1.5		SBB-03.5	3.5		40	
	112M	3.7	2.2		SBB-08	8		45	HD-30B
	132S	5.5	3.7		SBB-08	8		45	
	132M	3.7	5.5		SBB-08	8		45	
	160M	11	7.5		SBB-015	15		50	
	160L	15	11		SBB-030	30		55	
	180M	18.5	15		SBB-030	30		55	
	180L	30	18.5		SBB-060	60		60	
200L	37	30	SBB-060	60	60	HD-80			

■ SBB 브레이크의 사양표

	S B B						
	SBB-0.9	SBB-01.8	SBB-03.5	SBB-0.8	SBB-015	SBB-030	SBB-060
정격토크(TORQUE) (kg·m)	0.9	1.8	3.5	8	15	30	60
정격전압 (Voltage) (DC·V)	DC 90 V			(DC 190V)			
정격전류 (Current) (A at 20°C)	0.278	0.389	0.445	0.500	0.556	0.611	0.667
소비전력 (Capacity) (W at 20°C)	25	35	40	45	50	55	60
간극(Gap)							
규정간극 (Regular) (mm)	0.3	0.3	0.5	0.5	0.5	0.7	0.7
한계간극 (Limit) (mm)	0.8	0.8	1.0	2.0	2.0	2.0	2.0
COIL Ohm (at 20°C)	323.8	231.1	202.4	180.1	161.9	147.4	134.9
아마추어 흡인시간 (Attraction time) (sec)							
규정간극 (Regular) (mm)	0.09	0.12	0.15	0.08	0.13	0.15	0.18
한계간극 (Limit) (mm)	0.11	0.17	0.19	0.13	0.20	0.28	0.37
아마추어해방시간 (Diminishing) (sec)	0.045	0.05	0.065	0.080	0.085	0.090	0.095
허용열방산용량 (Allowable heat dissipation capacity) at 1800mm-50%ED (kg·m/min)	280	420	610	1190	1350	2490	3130
간극조정까지의 허용열량 (Allowable energy for first adjustment) at 1800mm-50%ED(kg·m/min)	2.21	2.91	16.95	26.4	32.5	39.8	51.9
허용총열량 (Allowable total energy) (×10 ⁶ ·m)	18	23.5	43	56	104	205	267
브레이크부GD ² (GD ² OF brake) (kg·m ²)	0.00124	0.00223	0.00168	0.0147	0.0205	0.04325	0.08921
전원장치 (Power Unit)	HD-10B (HD-20B)			HD-30B			HD-80

브레이크 전원장치

■ Type HD-10B 전원장치

HD-10전원장치 최신 전자부품을 조합하여 BRAKE MOTOR의 교류 일체절환을 할 경우에 발생하는 제품 지연 시간을 해소한 전원 장치로 응답시간 신속하고 안정되면 소형화된 제품으로 MOTOR에 취부 및 배선이 용이합니다. 상용 교류전원 AC 220V를정류하여 DC 90V의 출력 전원을 얻으며 고속 SWITCHING 부가 내장된 직류 전원 공급 장치입니다.

■ Type HD-10B Power unit

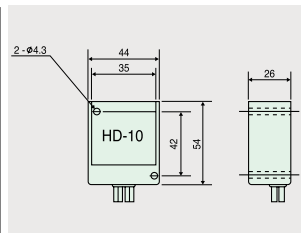
HD-10 Power unit is the latest style that provides quick response without delay time.

Exciting DC voltage, DC 90V is available from the AC power source(AC 220) and high speed switching device is inside.

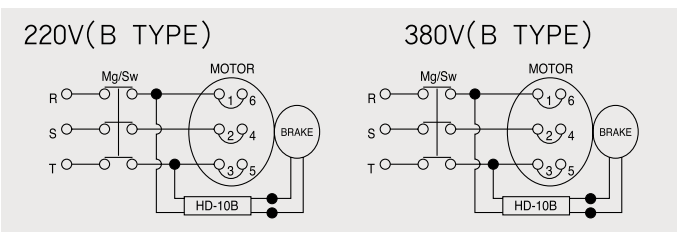
■ 사양(Specification)

전원장치 형식 (TYPE)	HD -10B
정격입력전압 (Primary voltage)	AC 220V, 50/60Hz
정격출력전압 (Secondary voltage)	DC 90V
정격출력전류 (Secondary Current)	DC 1A
주위온도범위 (Ambient temperature)	-10°C ~ +40°C
특징 (Feature)	Non-contact simultaneous switching (무접점 동시 절환형)

■ 외형치수도(Dimension)



■ 결선도 (Circuit)



- 전원장치는 반도체(SEMICONDUCTOR)로 구성되어있어 전기적 충격으로 소손될 수 있으므로 주의하십시오.
- 전원 장치 출력측(BACK)에 접점을 접속하여 사용하지 마십시오.

- Handle power unit carefully due to being made of semiconductor.
- Do not connect the output of power unit to contact point.

■ Type HD-20B, 20A 전원장치

HD-20전원장치는 별도 절환방식을 채택한 전원 장치로 접점을 사용하여 직류 별도 절환을 하여야 신속한 응답정을 얻을 수 있으며 보급형 전원장치로 널리 사용되고 있습니다.

상용 교류 전원을 AC 220V를 정류하여 DC 90V의 출력 전원을 얻는 보급형 별도 절환 직류전원 장치입니다.

■ Type HD-20B, 20A Power unit

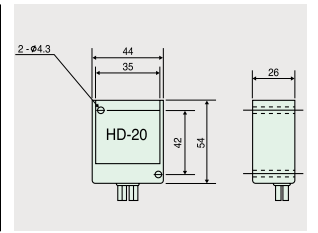
Fast and simple installation can be provided by using HD-20 Power unit.

Exciting DC Voltage, DC 90V is available from the AC power source (AC 220V)

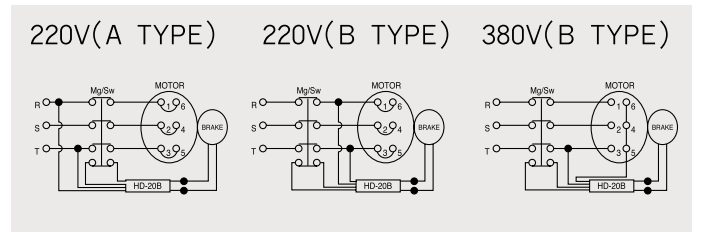
■ 사양(Specification)

전원장치 형식 (TYPE)	HD -20B, 20A
정격입력전압 (Primary voltage)	AC 220V, 50/60Hz
정격출력전압 (Secondary voltage)	DC 90V
정격출력전류 (Secondary current)	DC 2A
주위온도범위 (Ambient temperature)	-10°C ~ +40°C
특징 (Feature)	Separate switching (별도절환방식)

■ 외형치수도(Dimension)



■ 결선도 (Circuit)



- 무접점 전원장치가 아니므로 SWITCH를 사용하여서 별도 절환을 하여야 제동이 신속합니다. (단, 제동이 늦어도 제동이 없을시는 동시절환을 하여야 합니다.)
- 전원 장치는 반도체 SEMICONDUCTOR로 구성되어 있어 전기적 충격으로 소손될 수 있으므로 주의하십시오.

- Use separate switching for fast response. (In the case of fast response is unnecessary, simultaneous switching would be possible)
- Handle carefully

■ Type HD-30B,30A 전원장치

HD-30B전원장치 최신 전자부품을 조합하여 BRAKE MOTOR의 교류 일체절환을 할 경우에 발생하는 제품 지연 시간을 해소하고, 순시 과여자 방식(DC 190V)을 채택하여 응답 시간이 신속하고 안정되며 정밀한 정지 정도를 요구할때 사용되는 직류 전원 공급 장치 입니다.

상용 교류 전원 AC 220V 을 정류하여 DC 90V의 직류 전원을 얻으며 고속 SWITCHING부 및 과여자부가 내장된 직류 전원공급장치 입니다.

■ Type HD-30BA Power unit

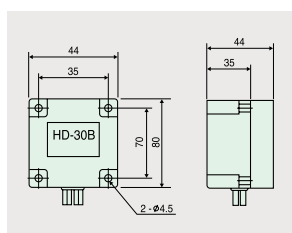
Twice over-excitation power unit HD-30 Provide fast response and perfect stop accuracy.

An over-excitation switching applies a high voltage(DC 190V)to the brake coil for a short period of time until the torque reaches full force by using high speed switching.

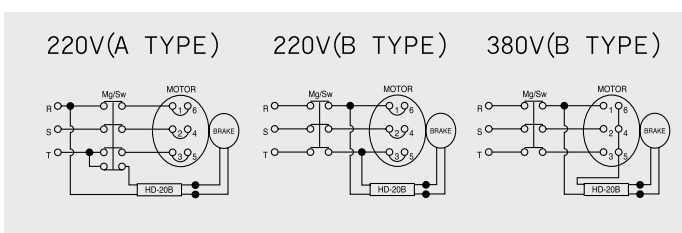
■ 사양(Specification)

전원장치 형식 (TYPE)	HD -30B,30A
정격입력전압 (Primary voltage)	AC 220V, 50/60Hz
정격출력전압 (Secondary voltage)	DC 90V (Instantaneously)
정격출력전류 (Secondary current)	DC 1A
주위온도범위 (Ambient temperature)	-10°C ~ +40°C
특징 (Feature)	simultaneous switching (동시 절환 방식)

■ 외형치수도(Dimension)



■ 결선도 (Circuit)



- 무접점 전원 장치로 교류 동시 절환을 하여야 제동이 신속합니다.
- 전원 장치는 반도체(SEMICONDUCTOR)구성 되어 있어 전기적 충격으로 손상될 수 있으므로 주의하십시오.
- BRAKE운전시 신속한 응답성과 안정된 정지정도를 요구할 때 가장 적합합니다.
- Use separate switching for fast response and stopping accuracy.
- Handle power unit carefully due to being made of semiconductor.
- Do not connect the output of power unit to contact point.
- Perfect for fast response and contact stopping accuracy of braking.

■ Type HD-80B 전원장치

HD-80전원장치는 대형 BRAKE 제어용으로 순시 과여자 전압(DC 270V) 방식 채택하여 열량이 크고 신속하며 안정된 제동이 장점이고 정격 여자 전압은 최소 DC 45V · 최대 DC 90V까지 조절이 가능하며 사용자의 사양 선택에 따라 고정 및 조절이 가능합니다.

■ Type HD-80B, Power unit

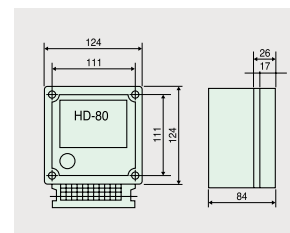
Compact and the latest style of HD-80 power unit provides very fast response and high stop precision by triple over-excitation.

Exciting voltage controlling is possible from DC 45V to DC 90V.

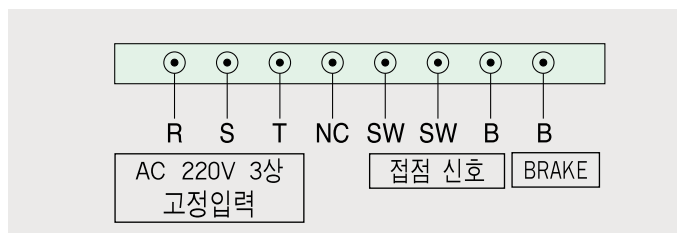
■ 사양(Specification)

전원장치 형식 (TYPE)	HD -80
정격입력 전압 (Primary voltage)	AC 220V 3Phase, 50/60Hz
정격출력전압 (Secondary voltage)	DC 45V~DC90V,Instantaneously DC270
정격출력전류 (Secondary current)	DC 2A
주위온도범위 (Ambient temperature)	-10°C ~ +40°C

■ 외형치수도(Dimension)



■ 결선도 (Circuit)



- AC 220V3상 입력 전원에는 접점을 사용하여 절환하지 마십시오.(고정입력)
- 접점 신호(S/W)를 사용하여 절환하면 정확한 정지 정도를 얻을 수 있습니다.
- 전원 장치는 반도체 (SEMICONDUCTOR)로 구성되어 있어 전기적 충격 (누설 전류,ARC)으로 손상될 수 있으므로 주의하시길 바랍니다.
- Do not switching with contact point in AC 220V, 3Phase.
- Handle carefully

SUPER MAX 동력 조합표

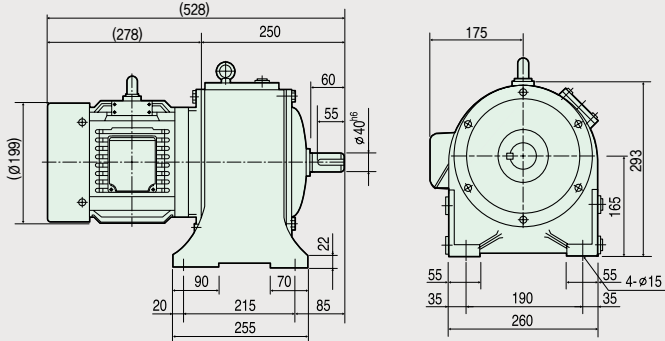
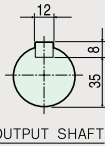
모터 동력	2HP <1.5kW>			3HP <2.2kW>			5HP <3.7kW>			7.5HP <5.5kW>			10HP <7.5kW>			15HP <11kW>				
	Type	HT	LP	VT	HT	LP	VT	HT	LP	VT	HT	LP	VT	HT	LP	VT	HT	LP	VT	
비율	4										2225									
	5				2165			2200			2225						2255			
	6							2200										2255		
	6.3																	2255		
	6.5	2165			2165			2200												
	7							2200										2255		
	8							2200			2225									
	10	2165			2165			2200			2225							2255		
	12	2165			2165															
	15	2165			2165			2200			2225							2255		
	20	2165			2165			2200			2225							2255		
	21	2165			2165															
	25	2165			2200			2225			2255			2255			2300			
	30	2165			2200			2225			2255			2255			2300			
	33										3255			3255			3300			
	35	3165						3225			3255			3255			3300			
	40	3165			3200			3225			3255			3255			3300			
	43																	3300		
	45				3200			3225			3255			3255			3300			
	50	3165			3200			3225			3255			3255			3300			
	55				3200															
	60	3165			3200			3225			3255			3255			3300			
	70				3225						3300			3300						
	75							3255			3300			3300						
80							3255			3300			3300			3350				
85																	3350			
90	3225			3200, 3225			3255			3300			3300			3350				
95							3255													
100				3255			3255			3300			3300			3350				
120				3255			3255			3300			3300			3350				
143							3255													
150				3255			3300			3300			3350							

모터 동력	20HP <15kW>			25HP <18.5kW>			30HP <22kW>			40HP <30kW>			50HP <37kW>		60HP <45kW>		75HP <55kW>	100HP <75kW>
	Type	HT	LP	VT	HT	LP	VT	HT	LP	VT	HT	LP	VT	HT	LP	HT	HT	
비율	1.5				2300			2300										
	2.5				2300			2300										
	3				2300			2300										
	5	2300			2300			2300			2350		2420	2420	2480	2480		
	6				2300			2300										
	7				2300			2300										
	7.5				2300			2300										
	8										2350							
	10	2300			2300			2300			2350		2420	2420	2480, 2520			
	15	2300			2300			2300			2350		2420	2420	2480, 2520			
	17				2300			2300			2350							
	18				2300			2300										
	20	2300			2300			2300			2350		2420	2420	2480, 2520			
	22										3350							
	25	2300			2350			2350			3350		3420	3420				
	28				2350			2350										
	30	2300			2350			2350			3350		3420	3420	3480, 3520			
	33	3300																
	35	3300			3350			3350			3420		3420	3420				
	40	3300			3350			3350			3420		3420	3420	3480, 3520			
43	3300																	
45	3300			3350			3350			3420		3420	3420					
50	3300			3350			3350			3420		3420	3420	3480, 3520				
55																		
60	3300			3350			3350			3420		3420	3420	3480, 3520				
80	3350																	
85	3350																	
90	3350			3420			3420											

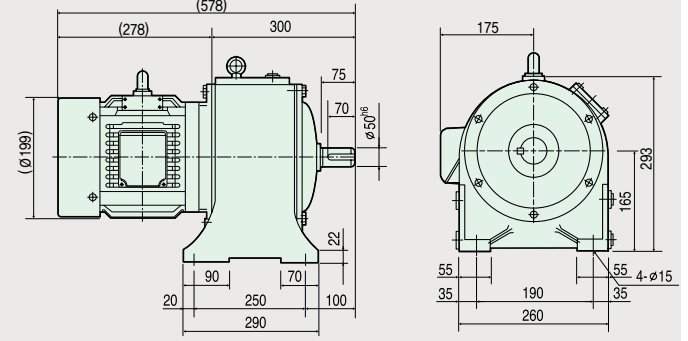
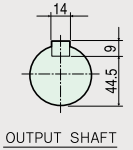
- 표기되지 않는 비율도 공급됩니다.
- 1:90 이상의 고비율도 가능합니다 (중간 감속기 부착)

GEARED MOTOR

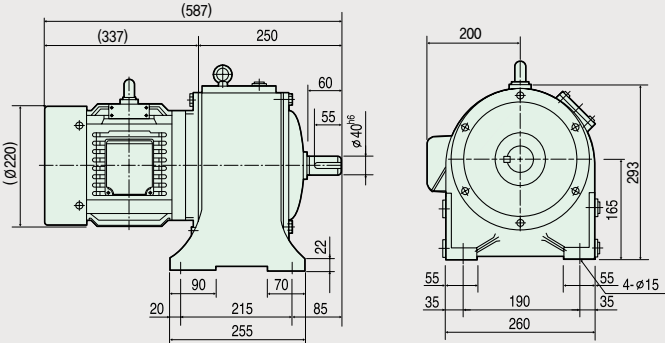
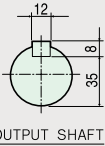
SM 2165 HT	Power	1.5kW 4P			0.75kW 6P		
	Gear Ratio	1/10	1/20	1/30	1/10	1/20	1/30
	RPM	180	90	60	120	60	40
	Weight(Kg)	70					



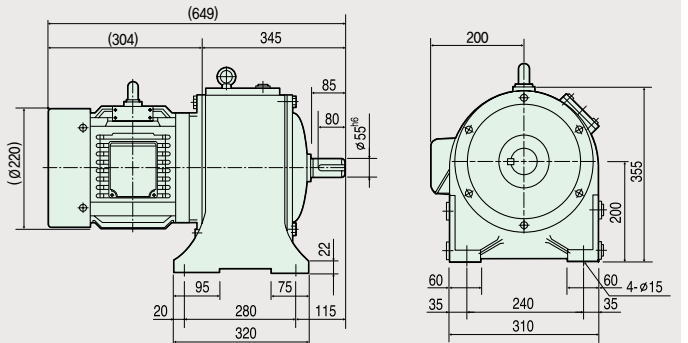
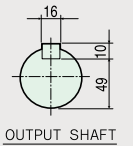
SM 3165 HT	Power	1.5kW 4P			0.75kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	90					



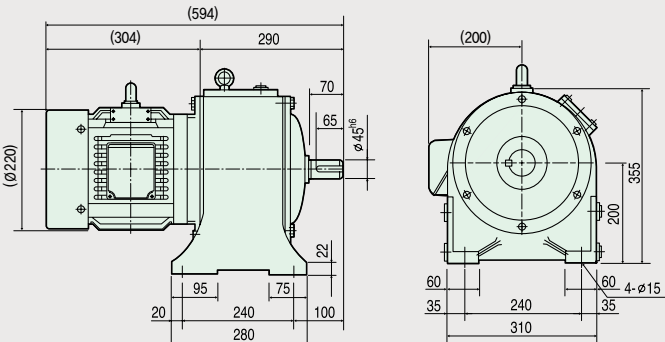
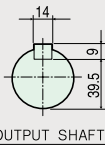
SM 2165 HT	Power	2.2kW 4P			1.5kW 6P		
	Gear Ratio	1/10	1/15	1/20	1/10	1/15	1/20
	RPM	180	120	90	120	80	60
	Weight(Kg)	85					



SM 3200 HT	Power	2.2kW 4P			1.5kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	140					



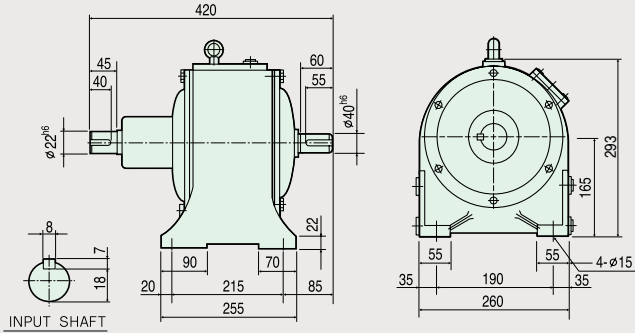
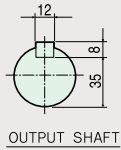
SM 2200 HT	Power	2.2kW 4P		1.5kW 6P	
	Gear Ratio	1/25	1/30	1/25	1/30
	RPM	72	60	48	40
	Weight(Kg)	98			



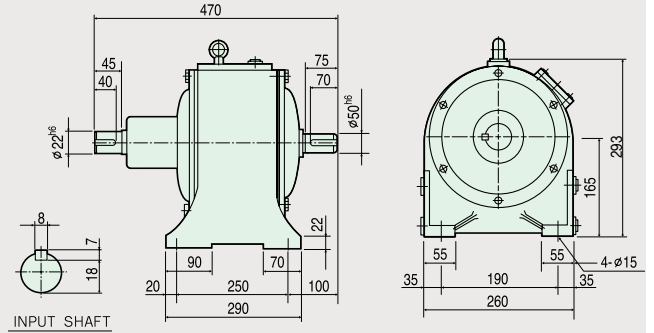
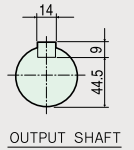
※ ()내의 치수는 다소 변경될 수 있음

LINE POWER

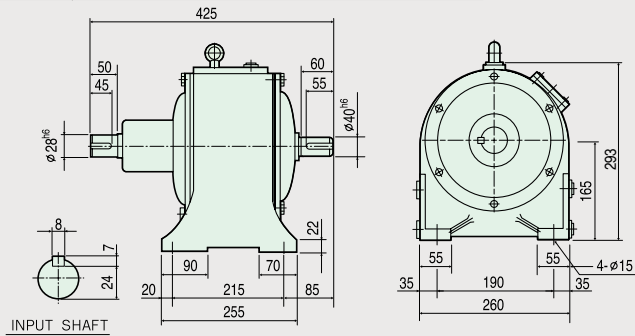
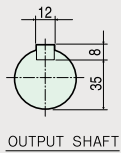
SM 2165 LP	Power	1.5kW 4P			0.75kW 6P		
	Gear Ratio	1/10	1/20	1/30	1/10	1/20	1/30
	RPM	180	90	60	120	60	40
	Weight(Kg)	52					



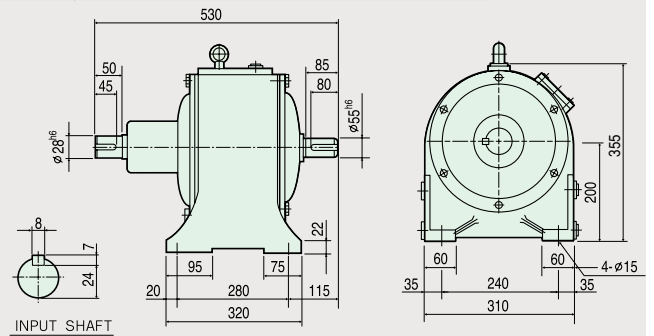
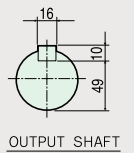
SM 3165 LP	Power	1.5kW 4P			0.75kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	72					



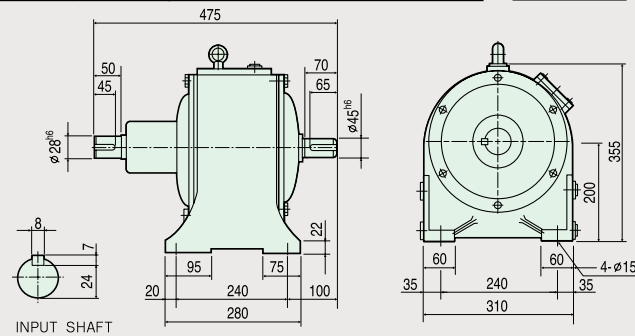
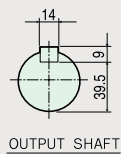
SM 2165 LP	Power	2.2kW 4P			1.5kW 6P		
	Gear Ratio	1/10	1/15	1/20	1/10	1/15	1/20
	RPM	180	120	90	120	80	60
	Weight(Kg)	52					



SM 3200 LP	Power	2.2kW 4P			1.5kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	116					

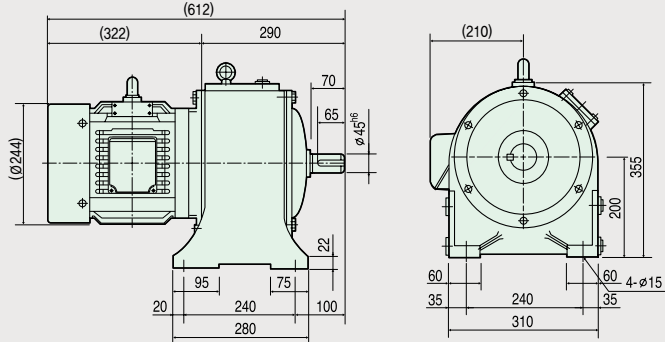
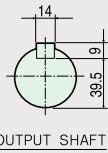


SM 2200 LP	Power	2.2kW 4P		1.5kW 6P	
	Gear Ratio	1/25	1/30	1/25	1/30
	RPM	72	60	48	40
	Weight(Kg)	76			

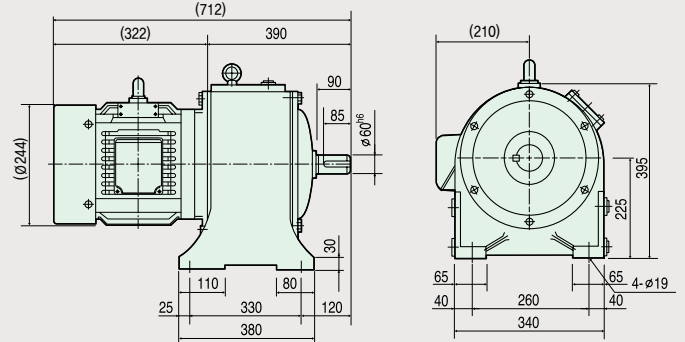
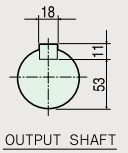


GEARED MOTOR

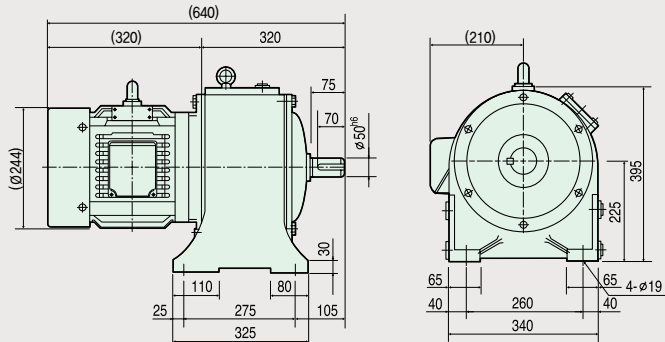
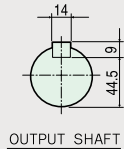
SM 2200 HT	Power	3.7kW 4P			2.2kW 6P		
	Gear Ratio	1/10	1/15	1/20	1/10	1/15	1/20
	RPM	180	120	90	120	80	60
	Weight(Kg)	110					



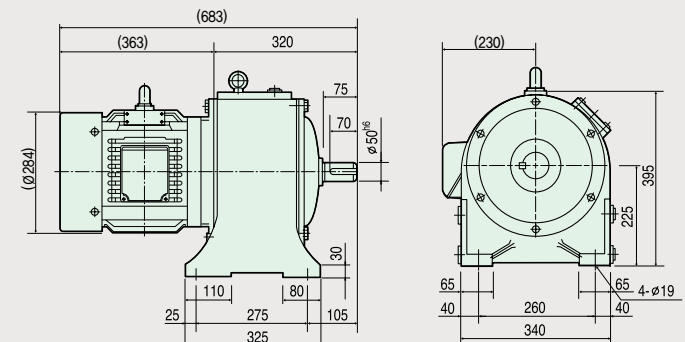
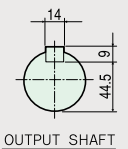
SM 3225 HT	Power	3.7kW 4P			2.2kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	185					



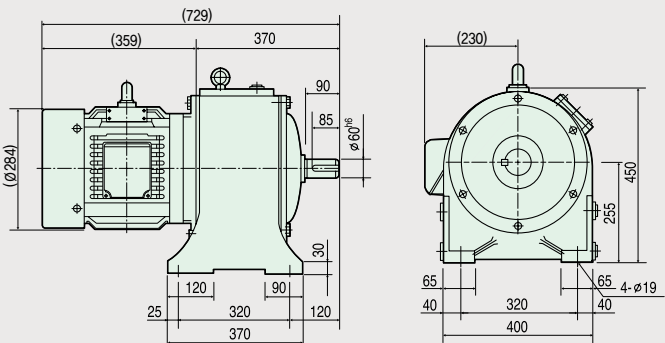
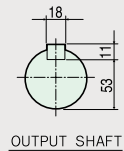
SM 2225 HT	Power	3.7kW 4P		2.2kW 6P	
	Gear Ratio	1/25	1/30	1/25	1/30
	RPM	72	60	48	40
	Weight(Kg)	135			



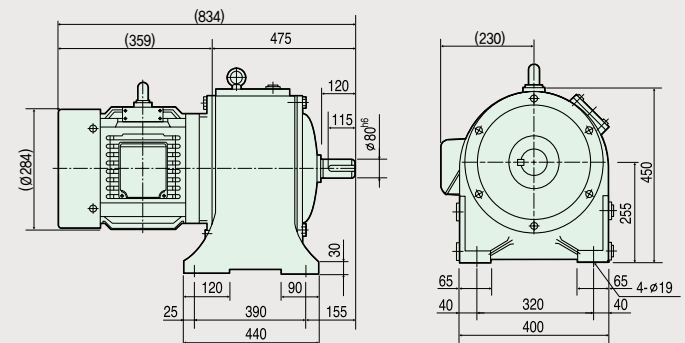
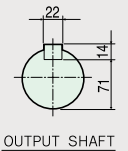
SM 2225 HT	Power	5.5kW 4P			3.7kW 6P		
	Gear Ratio	1/10	1/15	1/20	1/10	1/15	1/20
	RPM	180	120	90	120	80	60
	Weight(Kg)	160					



SM 2255 HT	Power	5.5kW 4P		3.7kW 6P	
	Gear Ratio	1/25	1/30	1/25	1/30
	RPM	72	60	48	40
	Weight(Kg)	200			



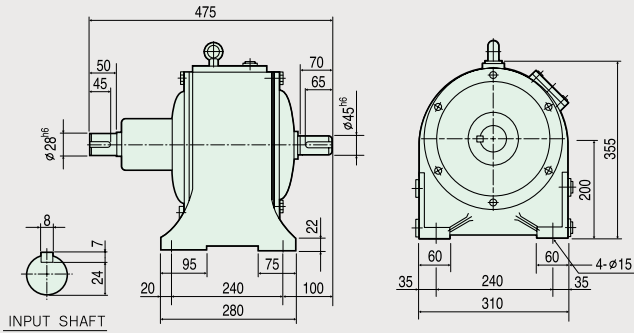
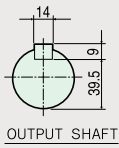
SM 3255 HT	Power	5.5kW 4P			3.7kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	295					



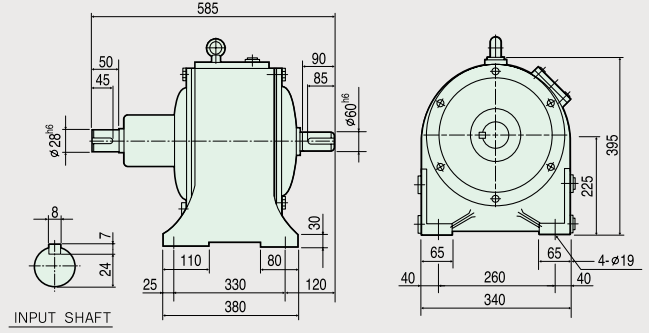
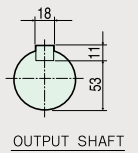
※ ()내의 치수는 다소 변경될 수 있음

LINE POWER

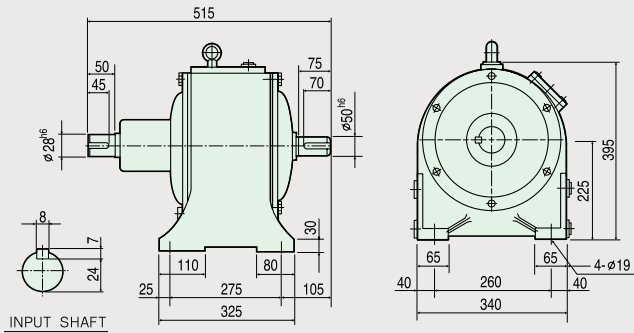
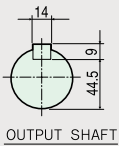
SM 2200 LP	Power	3.7kW 4P			2.2kW 6P		
	Gear Ratio	1/10	1/15	1/20	1/10	1/15	1/20
	RPM	180	120	90	120	80	60
	Weight(Kg)	76					



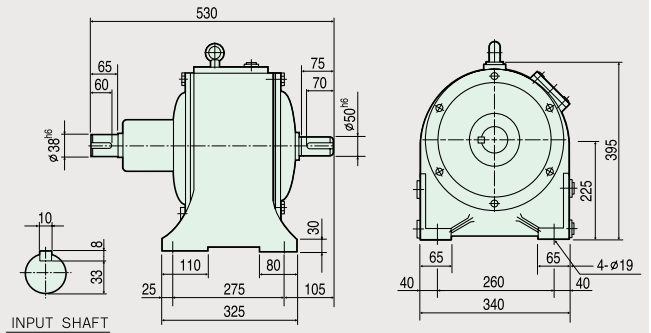
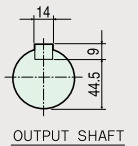
SM 3225 LP	Power	3.7kW 4P			2.2kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	160					



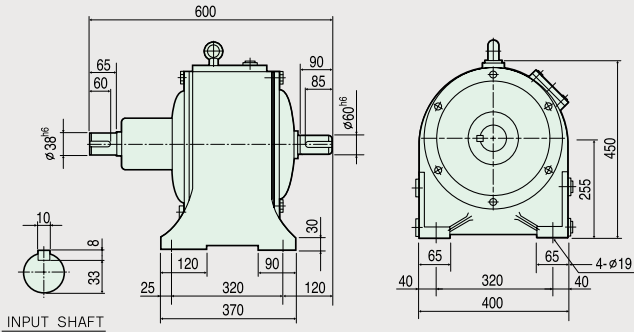
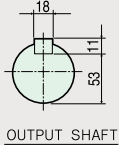
SM 2225 LP	Power	3.7kW 4P		2.2kW 6P	
	Gear Ratio	1/25	1/30	1/25	1/30
	RPM	72	60	48	40
	Weight(Kg)	105			



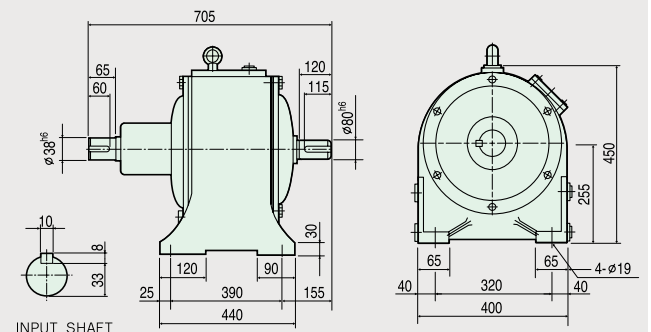
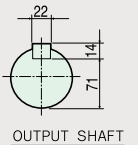
SM 2225 LP	Power	5.5kW 4P			3.7kW 6P		
	Gear Ratio	1/10	1/15	1/20	1/10	1/15	1/20
	RPM	180	120	90	120	80	60
	Weight(Kg)	107					



SM 2255 LP	Power	5.5kW 4P		3.7kW 6P	
	Gear Ratio	1/25	1/30	1/25	1/30
	RPM	72	60	48	40
	Weight(Kg)	175			

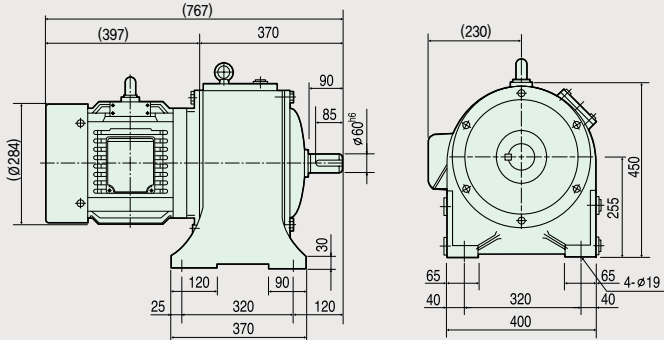
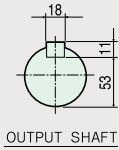


SM 3255 LP	Power	5.5kW 4P			3.7kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	250					

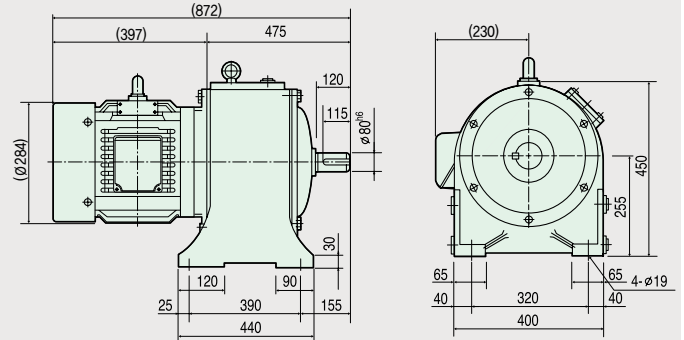
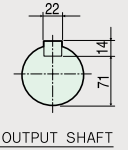


GEARED MOTOR

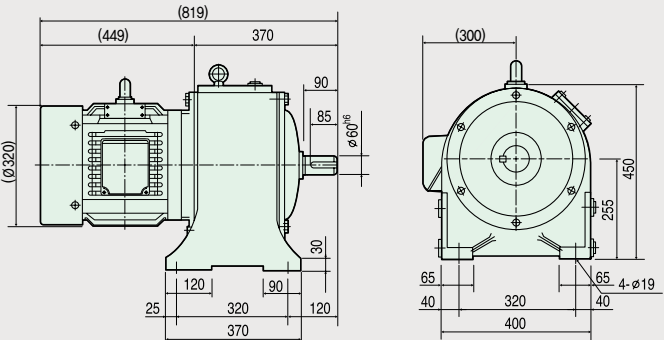
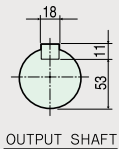
SM 2255 HT	Power	7.5kW 4P			5.5kW 6P		
	Gear Ratio	1/10	1/20	1/30	1/10	1/20	1/30
	RPM	180	90	60	120	60	40
	Weight(Kg)	220					



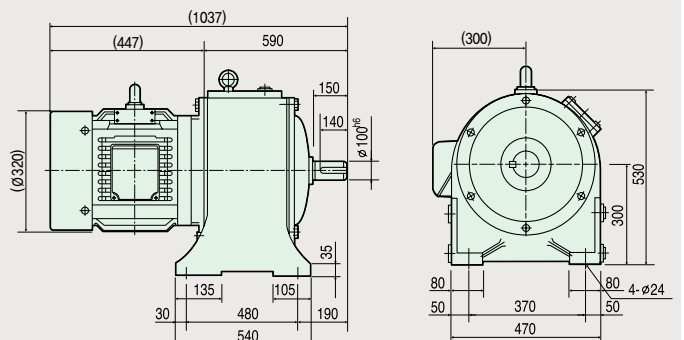
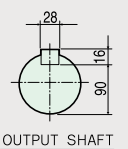
SM 3255 HT	Power	7.5kW 4P			5.5kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	310					



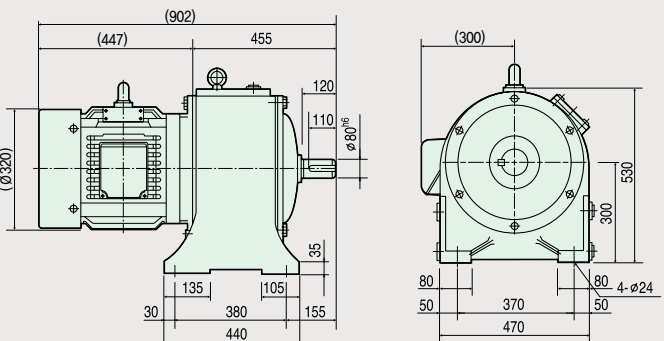
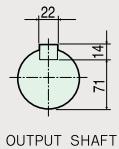
SM 2255 HT	Power	11 kW 4P			7.5kW 6P		
	Gear Ratio	1/10	1/15	1/20	1/10	1/15	1/20
	RPM	180	120	90	120	80	60
	Weight(Kg)	230					



SM 3300 HT	Power	11 kW 4P			7.5kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	450					



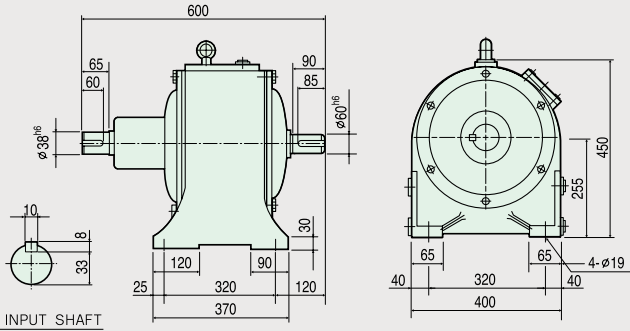
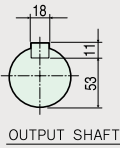
SM 2300 HT	Power	11kW 4P		7.5kW 6P	
	Gear Ratio	1/25	1/30	1/25	1/30
	RPM	72	60	48	40
	Weight(Kg)	370			



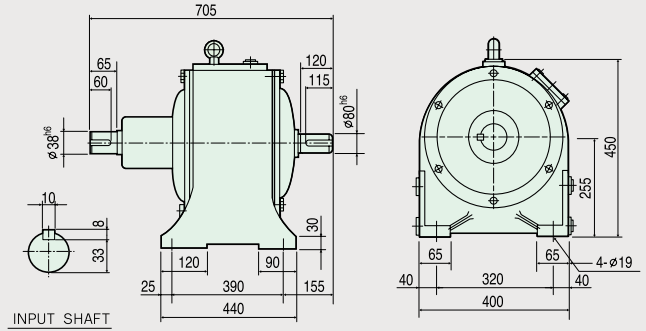
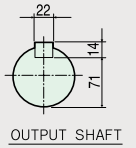
※ () 내의 치수는 다소 변경될 수 있음

LINE POWER

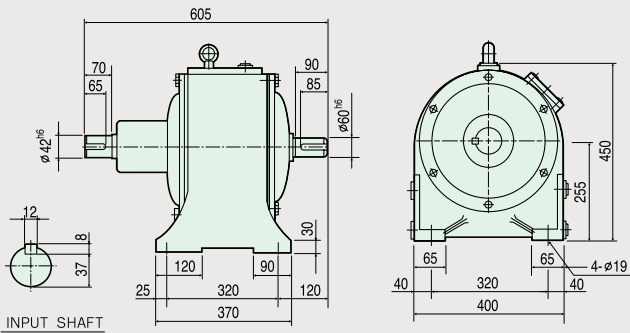
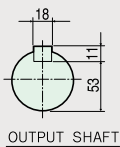
SM 2255 LP	Power	7.5kW 4P			5.5kW 6P		
	Gear Ratio	1/10	1/20	1/30	1/10	1/20	1/30
	RPM	180	90	60	120	60	40
	Weight(Kg)	175					



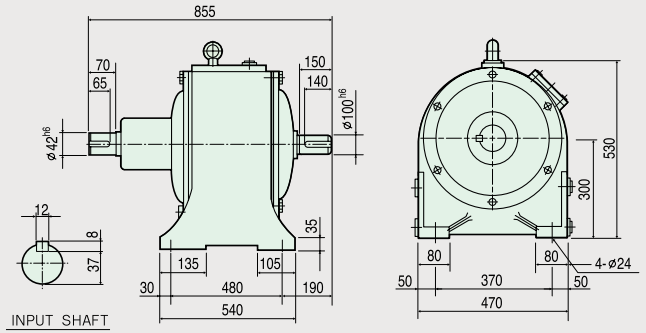
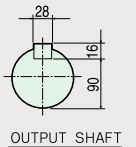
SM 3255 LP	Power	7.5kW 4P			5.5kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	250					



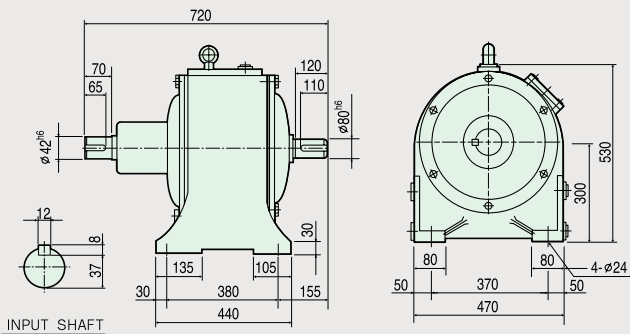
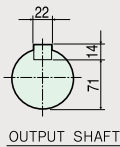
SM 2255 LP	Power	11kW 4P			7.5kW 6P		
	Gear Ratio	1/10	1/15	1/20	1/10	1/15	1/20
	RPM	180	120	90	120	80	60
	Weight(Kg)	178					



SM 3300 LP	Power	11kW 4P			7.5kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	365					

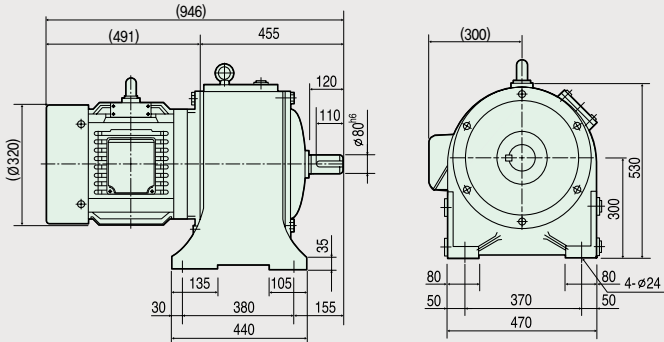
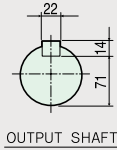


SM 2300 LP	Power	11kW 4P		7.5kW 6P	
	Gear Ratio	1/25	1/30	1/25	1/30
	RPM	72	60	48	40
	Weight(Kg)	280			

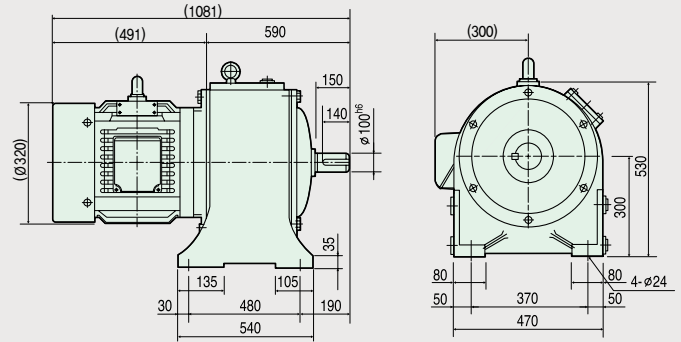
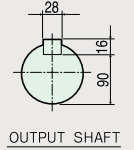


GEARED MOTOR

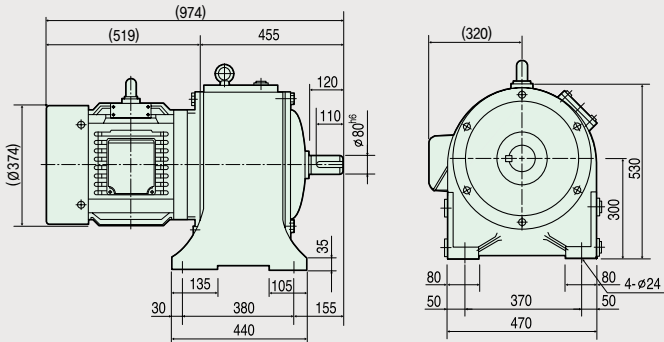
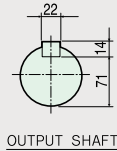
SM 2300 HT	Power	15kW 4P			11kW 6P		
	Gear Ratio	1/10	1/20	1/30	1/10	1/20	1/30
	RPM	180	90	60	120	60	40
	Weight(Kg)	390					



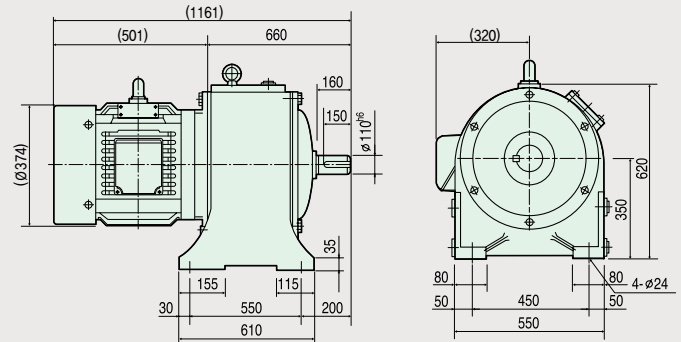
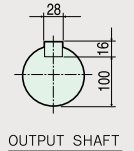
SM 3300 HT	Power	15kW 4P			11kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	485					



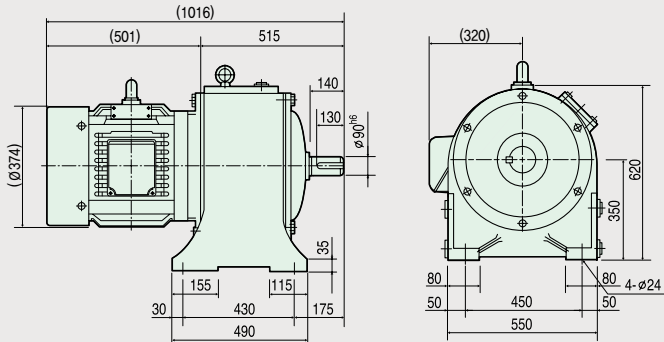
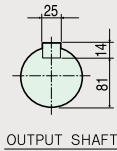
SM 2300 HT	Power	22kW 4P			15kW 6P		
	Gear Ratio	1/10	1/15	1/20	1/10	1/15	1/20
	RPM	180	120	90	120	80	60
	Weight(Kg)	480					



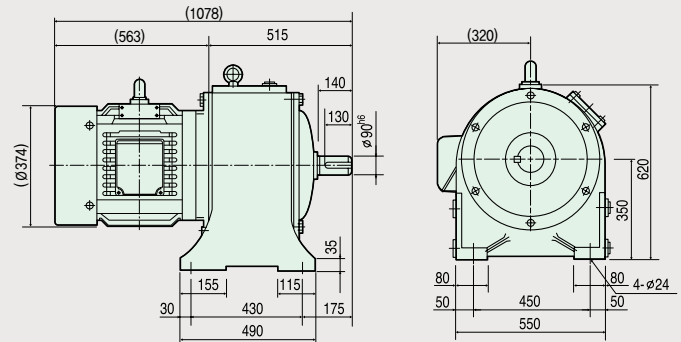
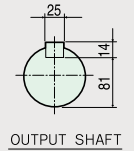
SM 3350 HT	Power	22kW 4P			15kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	690					



SM 2350 HT	Power	22kW 4P		15kW 6P	
	Gear Ratio	1/25	1/30	1/25	1/30
	RPM	72	60	48	40
	Weight(Kg)	525			



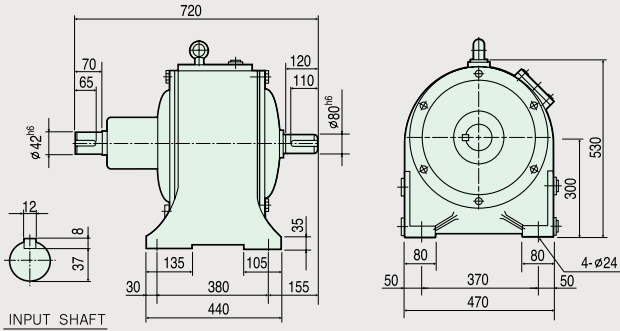
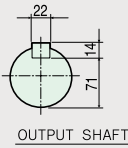
SM 2350 HT	Power	30kW 4P			19kW 6P		
	Gear Ratio	1/10	1/15	1/20	1/10	1/15	1/20
	RPM	180	120	90	120	80	60
	Weight(Kg)	605					



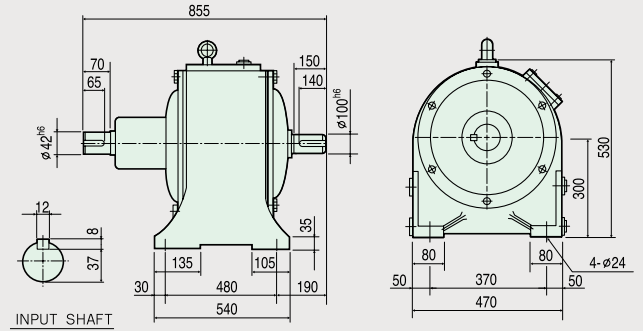
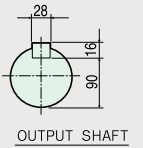
※ () 내의 치수는 다소 변경될 수 있음

LINE POWER

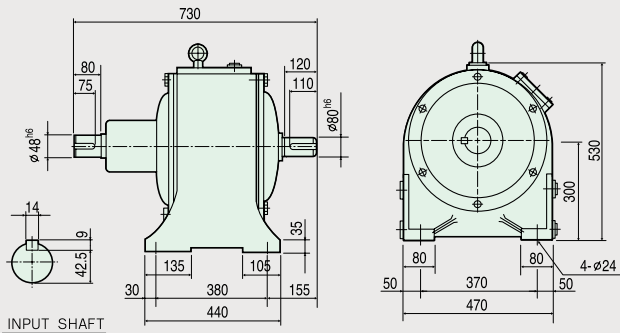
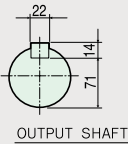
SM 2300 LP	Power	15kW 4P			11kW 6P		
	Gear Ratio	1/10	1/20	1/30	1/10	1/20	1/30
	RPM	180	90	60	120	60	40
	Weight(Kg)	280					



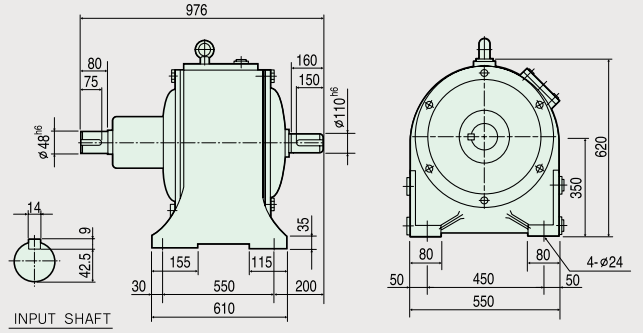
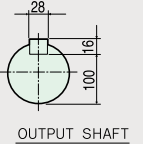
SM 3300 LP	Power	15kW 4P			11kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	365					



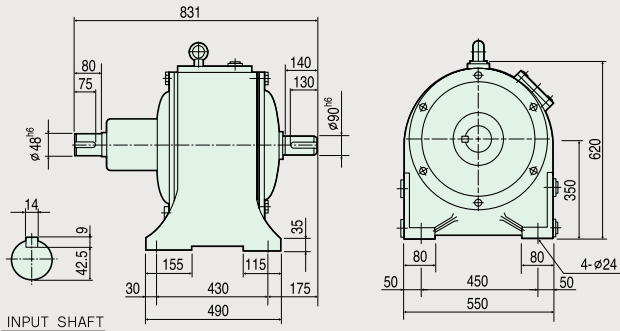
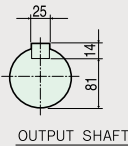
SM 2300 LP	Power	22kW 4P			15kW 6P		
	Gear Ratio	1/10	1/15	1/20	1/10	1/15	1/20
	RPM	180	120	90	120	80	60
	Weight(Kg)	285					



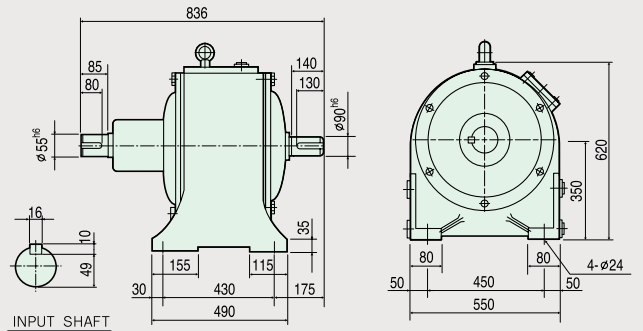
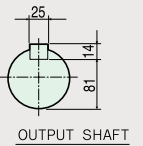
SM 3350 LP	Power	22kW 4P			15kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	480					



SM 2350 LP	Power	22kW 4P		15kW 6P	
	Gear Ratio	1/25	1/30	1/25	1/30
	RPM	72	60	48	40
	Weight(Kg)	350			

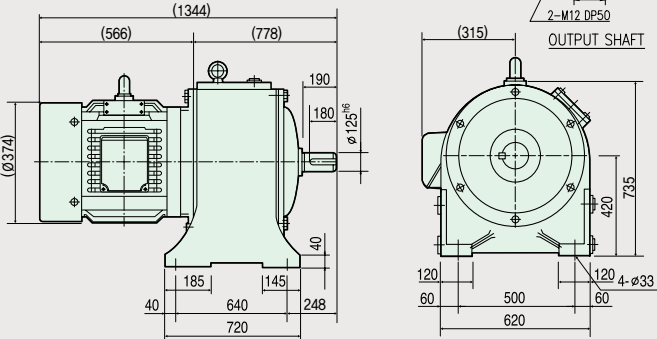


SM 2350 LP	Power	30kW 4P			19kW 6P		
	Gear Ratio	1/10	1/15	1/20	1/10	1/15	1/20
	RPM	180	120	90	120	80	60
	Weight(Kg)	355					



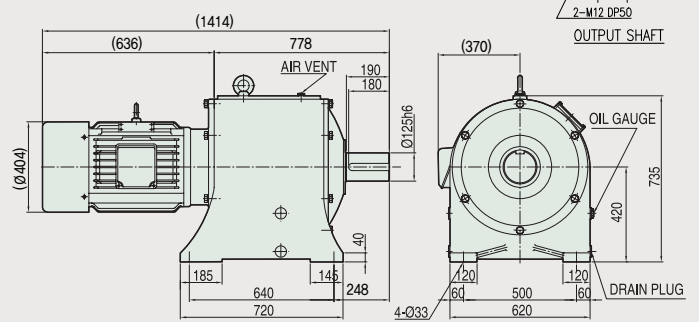
GEARED MOTOR

SM 3420 HT	Power	30kW 4P			22kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	960					



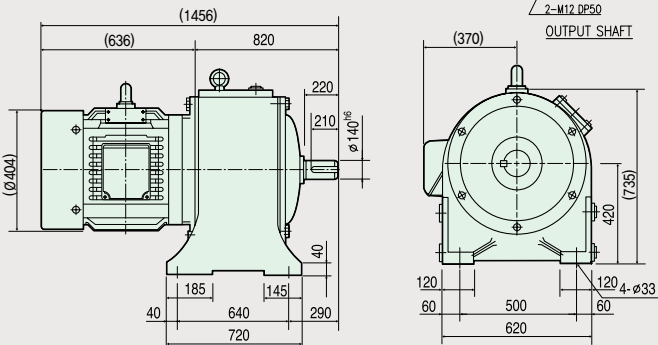
※ ()내의 치수는 다소 변경될 수 있음

SM 3420 HT	Power	37kW 4P		30kW 6P	
	Gear Ratio	1/25	1/30	1/25	1/30
	RPM	70	60	48	40
	Weight(Kg)	980			



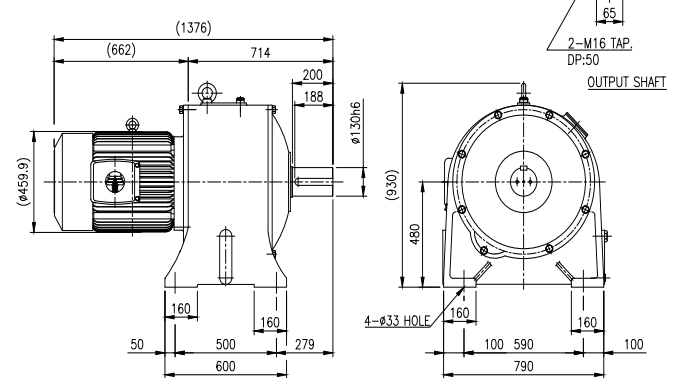
※ ()내의 치수는 다소 변경될 수 있음

SM 3420 HT	Power	37kW 4P			30kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	980					



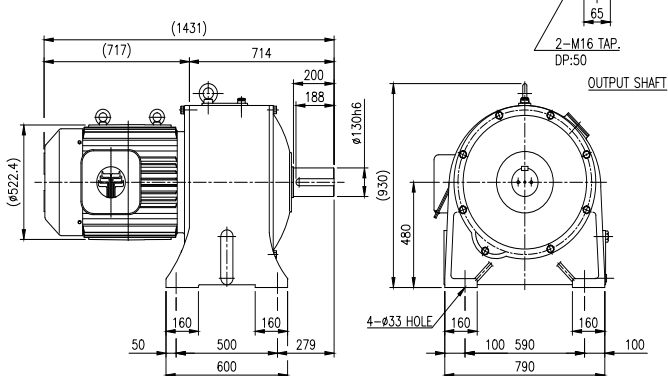
※ ()내의 치수는 다소 변경될 수 있음

SM 2480 HT	Power	55kW 4P				37kW 6P			
	Gear Ratio	1/5	1/10	1/15	1/20	1/5	1/10	1/15	1/20
	RPM	360	180	120	90	240	120	80	60
	Weight(Kg)	950							

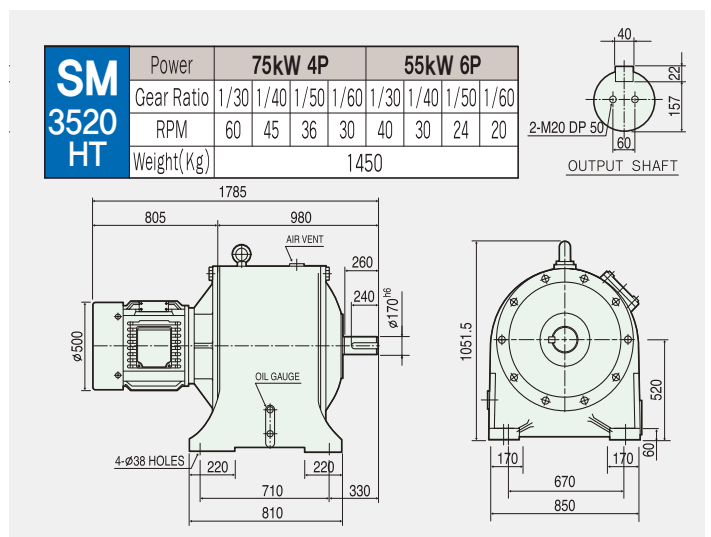
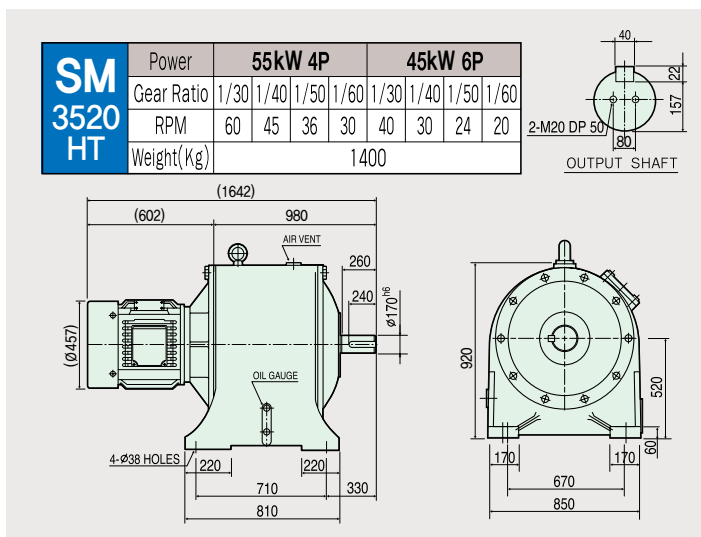
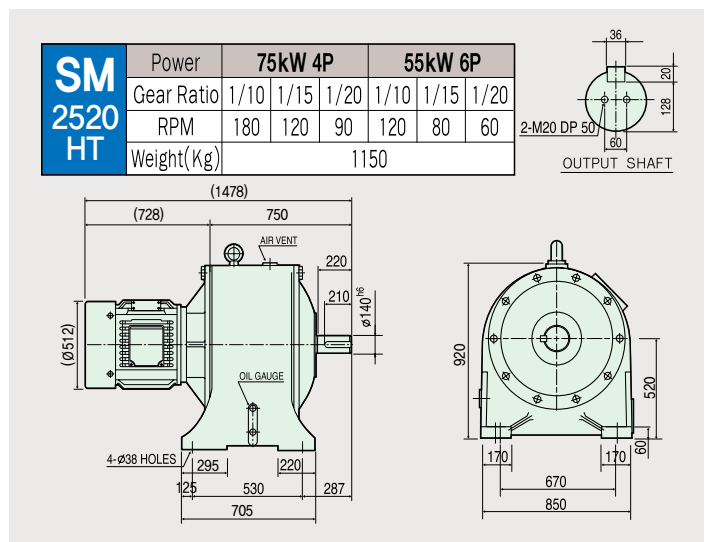
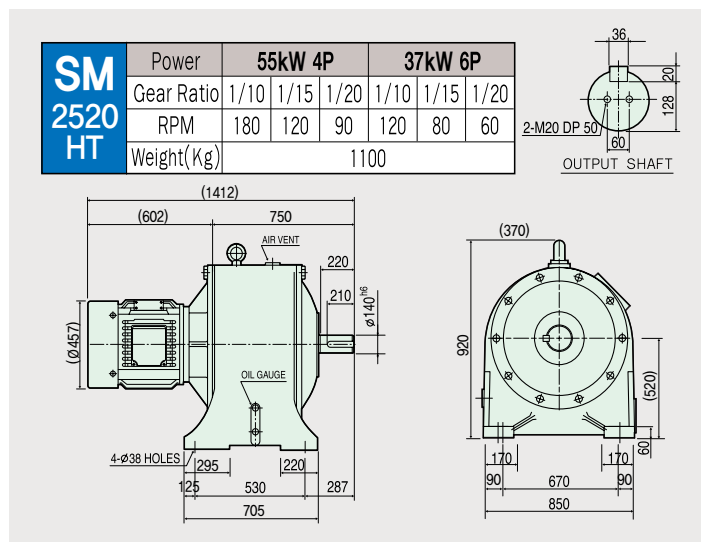
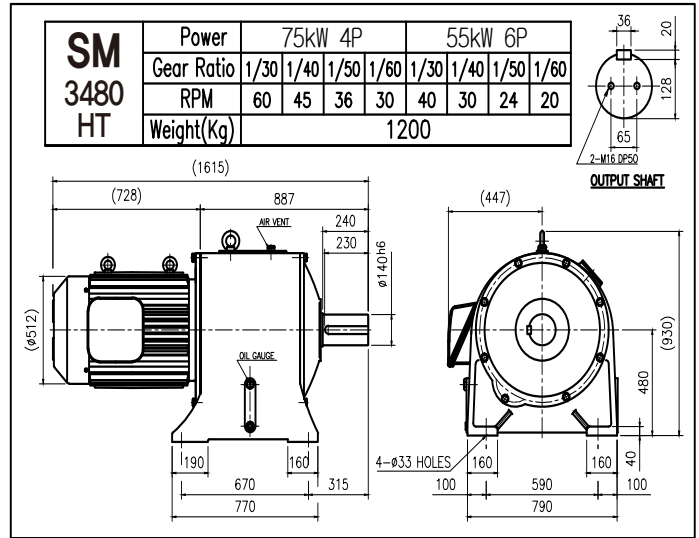
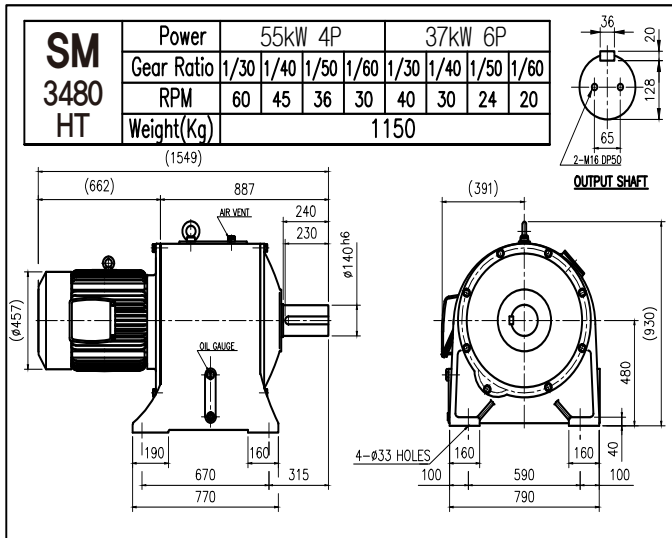


※ ()내의 치수는 다소 변경될 수 있음

SM 2480 HT	Power	75kW 4P				55kW 6P			
	Gear Ratio	1/5	1/10	1/15	1/20	1/5	1/10	1/15	1/20
	RPM	360	180	120	90	240	120	80	60
	Weight(Kg)	1000							

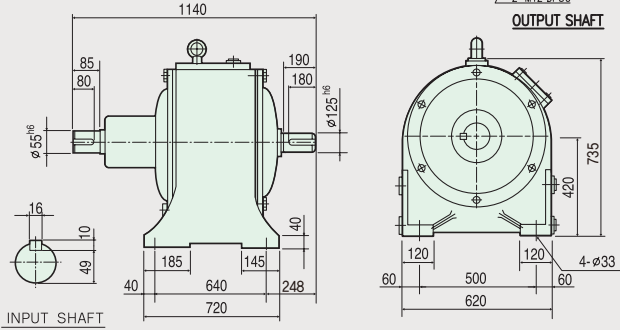
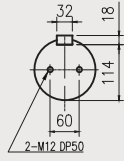


GEARED MOTOR

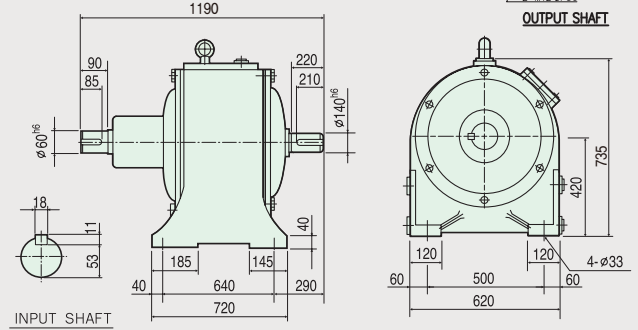
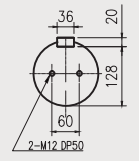


LINE POWER

SM 3420 LP	Power	30kW 4P			22kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	660					

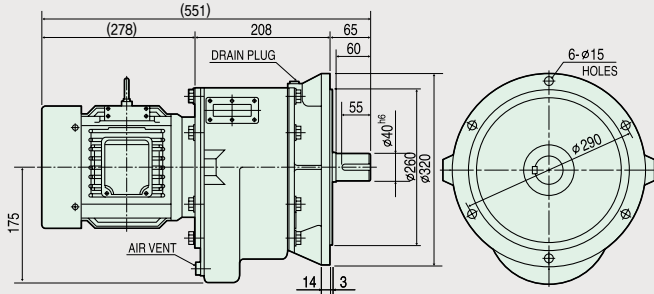
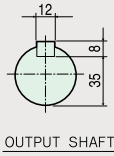


SM 3420 LP	Power	37kW 4P			30kW 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	680					

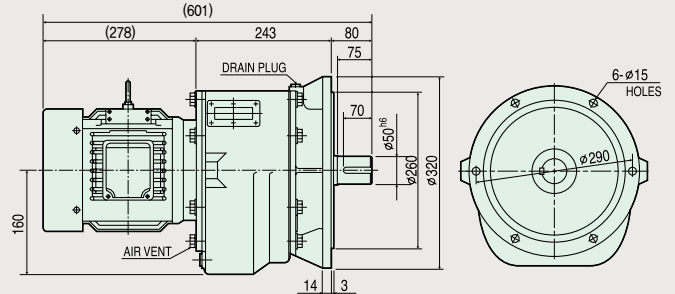
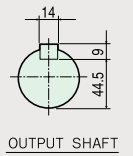


V, T GEARED MOTOR

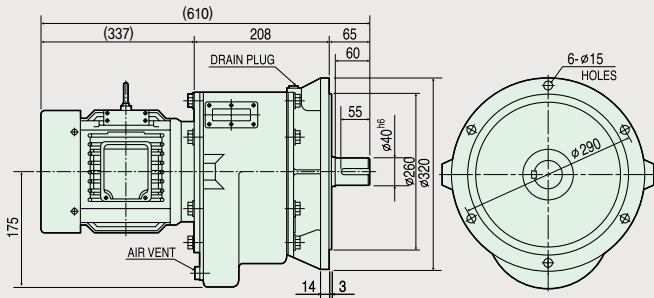
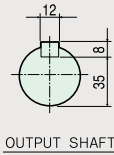
SM 2165 VT	Power	1.5Kw 4P			0.75Kw 6P		
	Gear Ratio	1/10	1/20	1/30	1/10	1/20	1/30
	RPM	180	90	60	120	60	40
	Weight(Kg)	89					



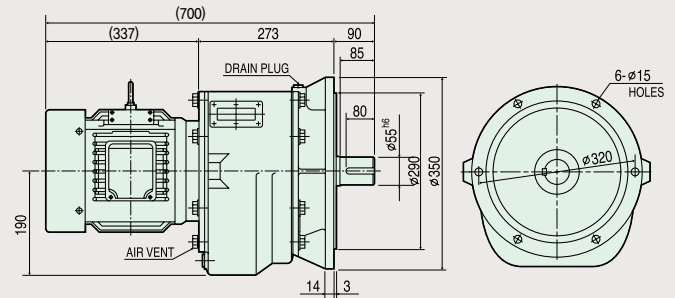
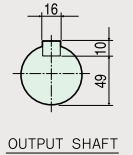
SM 3165 VT	Power	15.Kw 4P			0.75Kw 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	108					



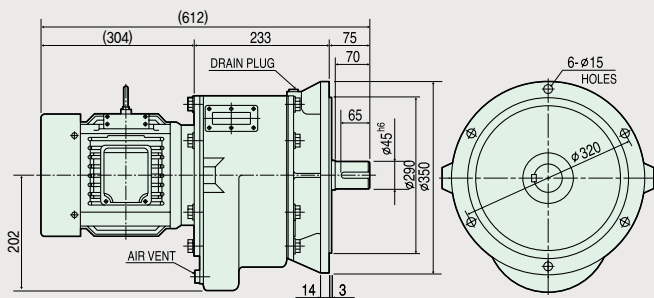
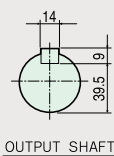
SM 2165 VT	Power	2.2Kw 4P			1.5Kw 6P		
	Gear Ratio	1/10	1/15	1/20	1/10	1/15	1/20
	RPM	180	120	90	120	80	60
	Weight(Kg)	104					



SM 3200 VT	Power	2.2Kw 4P			1.5Kw 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	168					



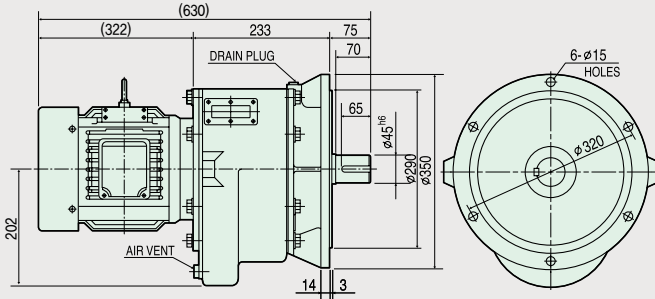
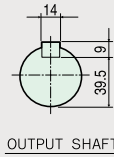
SM 2200 VT	Power	2.2Kw 4P		1.5Kw 6P	
	Gear Ratio	1/25	1/30	1/25	1/30
	RPM	72	60	48	40
	Weight(Kg)	122			



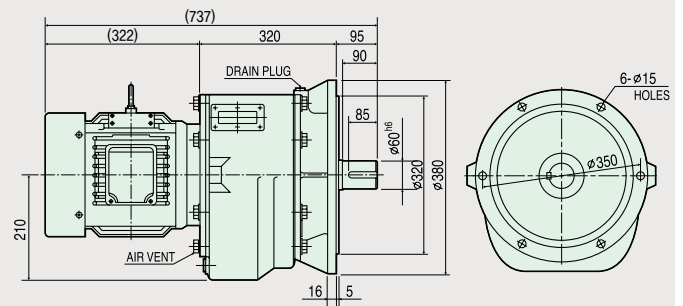
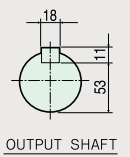
※ () 내의 치수는 다소 변경될 수 있음

V, T GEARED MOTOR

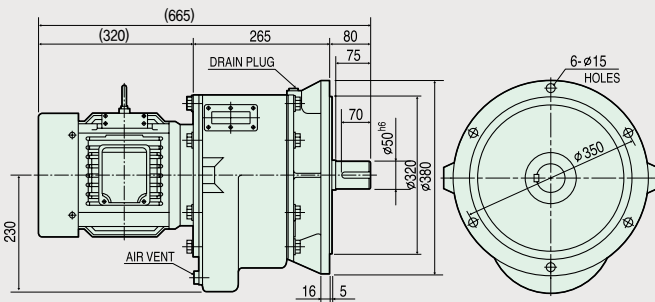
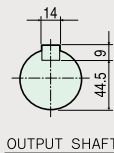
SM 2200 VT	Power	3.7Kw 4P			2.2Kw 6P		
	Gear Ratio	1/10	1/15	1/20	1/10	1/15	1/20
	RPM	180	120	90	120	80	60
	Weight(Kg)	133					



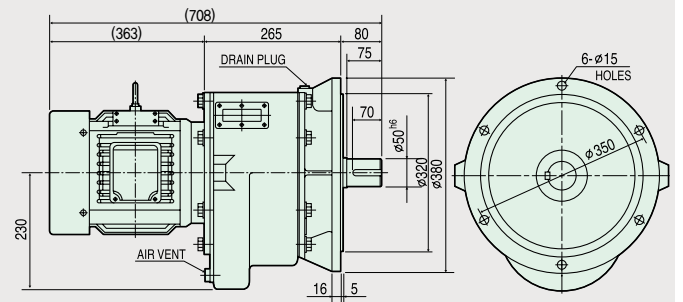
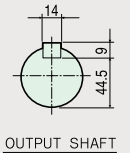
SM 3225 VT	Power	3.7Kw 4P			2.2Kw 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	210					



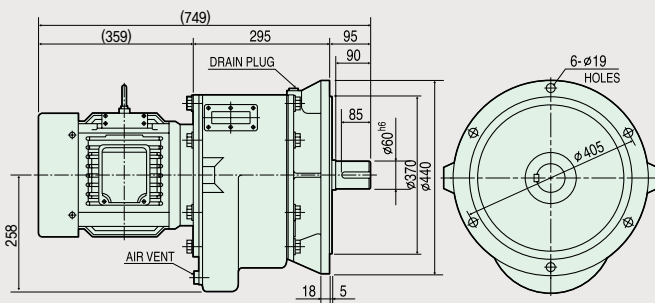
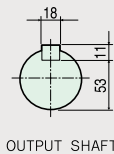
SM 2225 VT	Power	3.7Kw 4P		2.2Kw 6P	
	Gear Ratio	1/25	1/30	1/25	1/30
	RPM	72	60	48	40
	Weight(Kg)	160			



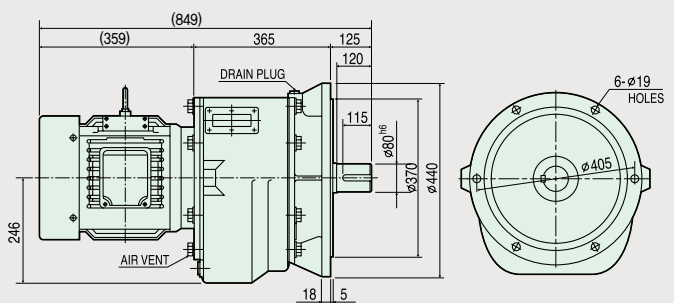
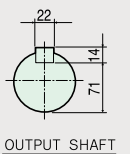
SM 2225 VT	Power	5.5Kw 4P			3.7Kw 6P		
	Gear Ratio	1/10	1/15	1/20	1/10	1/15	1/20
	RPM	180	120	90	120	80	60
	Weight(Kg)	180					



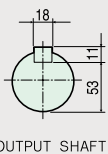
SM 2255 VT	Power	5.5Kw 4P		3.7Kw 6P	
	Gear Ratio	1/25	1/30	1/25	1/30
	RPM	72	60	48	40
	Weight(Kg)	240			



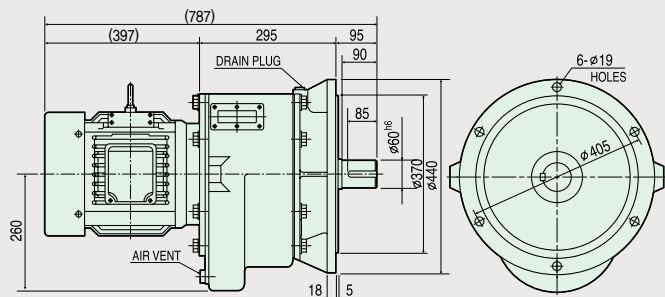
SM 3255 VT	Power	5.5Kw 4P			3.7Kw 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	332					



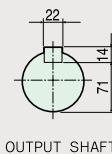
SM 2255 VT	Power	7.5Kw 4P			5.5Kw 6P		
	Gear Ratio	1/10	1/20	1/30	1/10	1/20	1/30
	RPM	180	90	60	120	60	40
	Weight(Kg)	260					



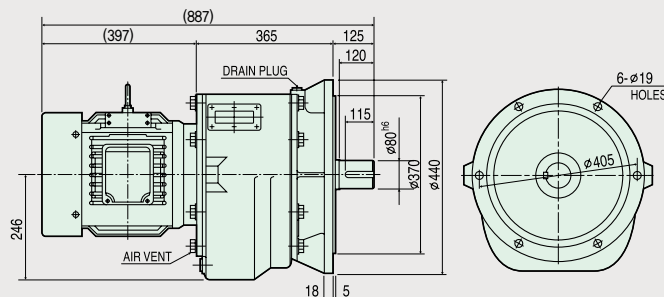
OUTPUT SHAFT



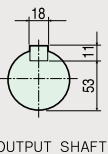
SM 3255 VT	Power	7.5Kw 4P			5.5Kw 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	350					



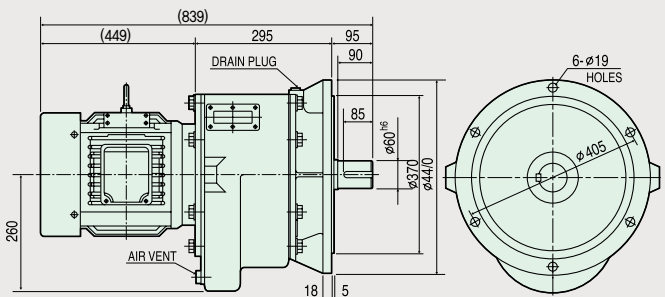
OUTPUT SHAFT



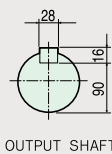
SM 2255 VT	Power	11Kw 4P			7.5Kw 6P		
	Gear Ratio	1/10	1/15	1/20	1/10	1/15	1/20
	RPM	180	120	90	120	80	60
	Weight(Kg)	315					



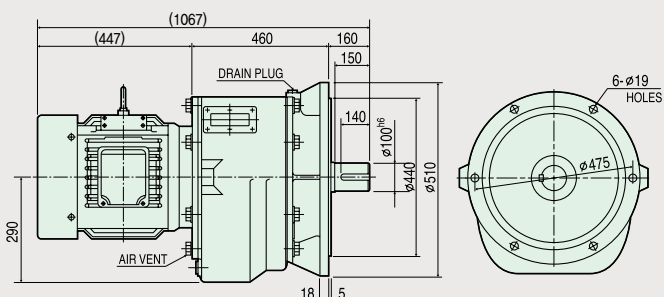
OUTPUT SHAFT



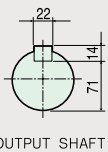
SM 3300 VT	Power	11Kw 4P			7.5Kw 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	490					



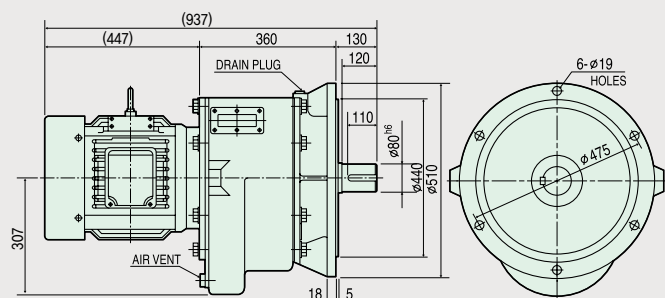
OUTPUT SHAFT



SM 2300 VT	Power	11Kw 4P		7.5Kw 6P	
	Gear Ratio	1/25	1/30	1/25	1/30
	RPM	72	60	48	40
	Weight(Kg)	415			



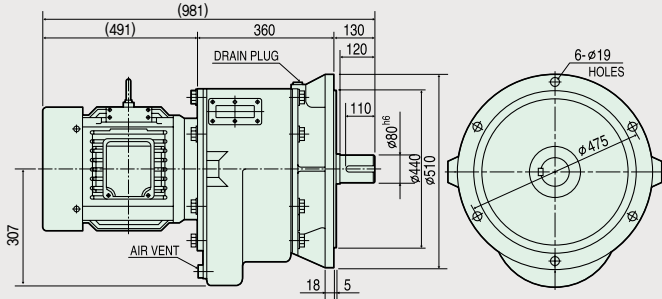
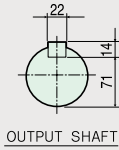
OUTPUT SHAFT



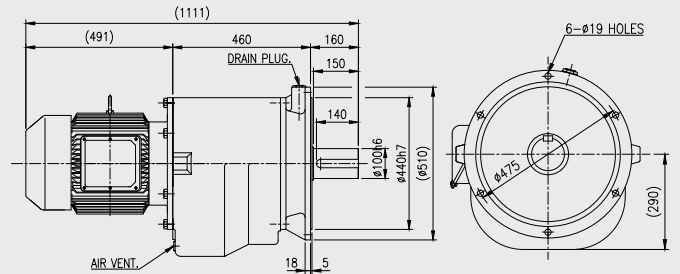
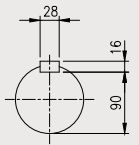
※ () 내의 치수는 다소 변경될 수 있음

V, T GEARED MOTOR

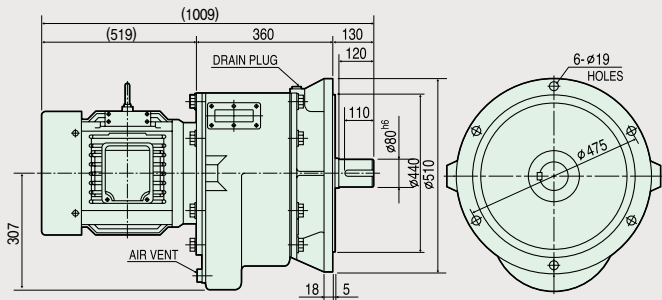
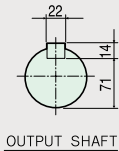
SM 2300 VT	Power	15Kw 4P			11Kw 6P		
	Gear Ratio	1/10	1/20	1/30	1/10	1/20	1/30
	RPM	180	90	60	120	60	40
	Weight(Kg)	435					



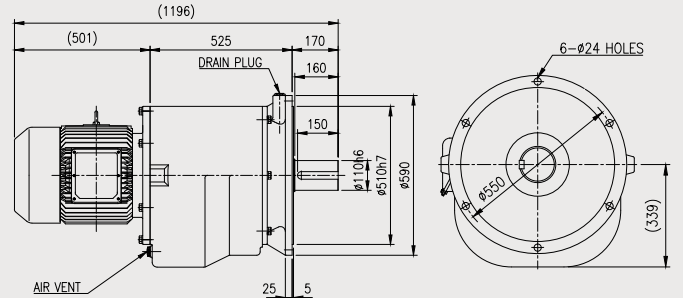
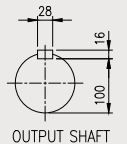
SM 3300 VT	Power	15Kw 4P			11Kw 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	530					



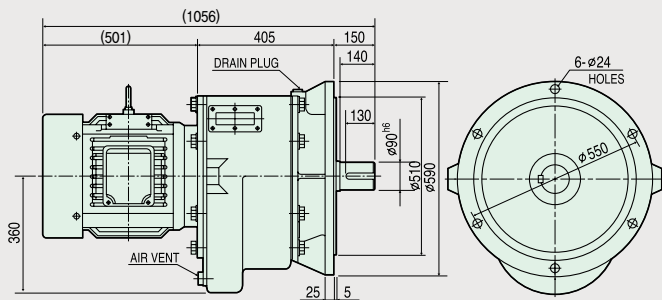
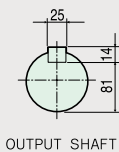
SM 2300 VT	Power	22Kw 4P			15Kw 6P		
	Gear Ratio	1/10	1/15	1/20	1/10	1/15	1/20
	RPM	180	120	90	120	80	60
	Weight(Kg)	525					



SM 3350 VT	Power	22Kw 4P			15Kw 6P		
	Gear Ratio	1/40	1/50	1/60	1/40	1/50	1/60
	RPM	45	36	30	30	24	20
	Weight(Kg)	740					



SM 2350 VT	Power	22Kw 4P		15Kw 6P	
	Gear Ratio	1/25	1/30	1/25	1/30
	RPM	72	60	48	40
	Weight(Kg)	590			



SM 2350 VT	Power	30Kw 4P			22Kw 6P		
	Gear Ratio	1/10	1/15	1/20	1/10	1/15	1/20
	RPM	180	120	90	120	80	60
	Weight(Kg)	590					

