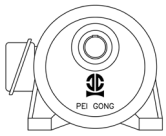
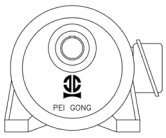
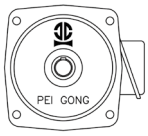
小型齒輪減速 (馬達) Small Gear Reducer (Motor)

- 小型減速 (馬達) 產品代碼說明及安裝方式
  Products Codes for Small Gear Reducer (Motor) & Mounting Positions ---------- C01~C02
- 小型齒輪減速 (馬達) 系統分解圖
  Small Gear Reducer (Motor) System Drawing ---------- C03
- 內部結構圖
  Brake Inner structure ---------- C04
- 直流剎車器故障排除
  Defect solve for DC Brake Unit ---------- C05
- 選用條件與計算方式
  Calculations & condition ---------- C06~C09
- 減速機故障排除
  Trouble shouting for Gear Motor ----------C10
- 減速機減速比 / 馬力 / 最大可承受扭力對照表
  Sequence Balance Table of Ratio / HP & Maximum Torque ---------- C11
- 潤滑油選定及重量表
  Selection of Lubricant Oil ---------- C12
- 減速機 (馬達) 尺寸規範
  Gear Reducer Motor series dimension ---------- C13~C45

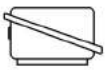
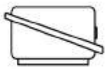
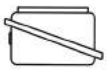
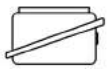
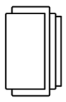
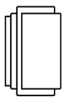
小型減速（馬達）產品代碼說明及安裝方式
Products Codes for Small Gear Reducer (Motor) & Mounting Positions

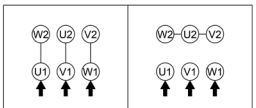
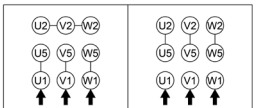
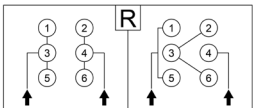
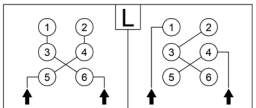
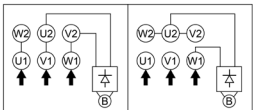
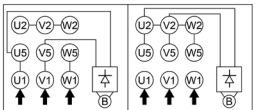
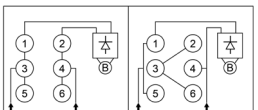
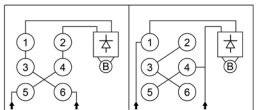
GH	-	22	-	200	-	60	-	S	-	B	-	V1	-	RD
(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)

(1) 機型 Type	臥式 (Horizontal)：GH,GHL,GHD,GHDL,GHM,GHML, 立式 (Vertical)：GV,GVL,GVD,GVDL,GVM,GVML	
(2) 出力軸 Output Shaft	18Ø, 22Ø, 28Ø, 32Ø, 40Ø, 50Ø	
(3) 馬力 Capacity (HP/KW)	100W(1/8HP), 200W(1/4HP), 400W(1/2HP), 750W(1HP), 1500W(2HP), 2200W(3HP), 3700W(5HP)	
(4) 減速比 Ratio	1/5~1/1800	
(5) 電壓 Volt	S- 三相 (3-Phase) 220/380V-50,60Hz,	S- 三相 (3-Phase) 220/440V-50,60Hz
	A- 單相 (Single Phase) 110/220V-50,60Hz	C- 特殊 Special
	P- 東元鐵框三相馬達 TECO 3-Phase Steel Plate Motor	
(6) 剎車種類 Brake Type	B-DC90V 電磁剎車 DC90V Electromagnetic Brake	BH - 手釋放剎車器 With Release Brake Unit
	D-DC24V 送電剎車器 DC24V Brake	W - 蝸輪減速機 Worm Gear Reducer
(7) 依出力軸看配線盒方向 View From Output shaft	V1 - 左方 Left(出廠標準型 Standard Type)	V2 - 右方 Right
	V3 - 上方 Upper	V4 - 下方 Lower
(8) 入線孔方向 Wire Inlet	U - 上 UP	D - 下 Down
	L - 左 Left	R - 右 Right
	F - 前 Forward	B - 後 Back

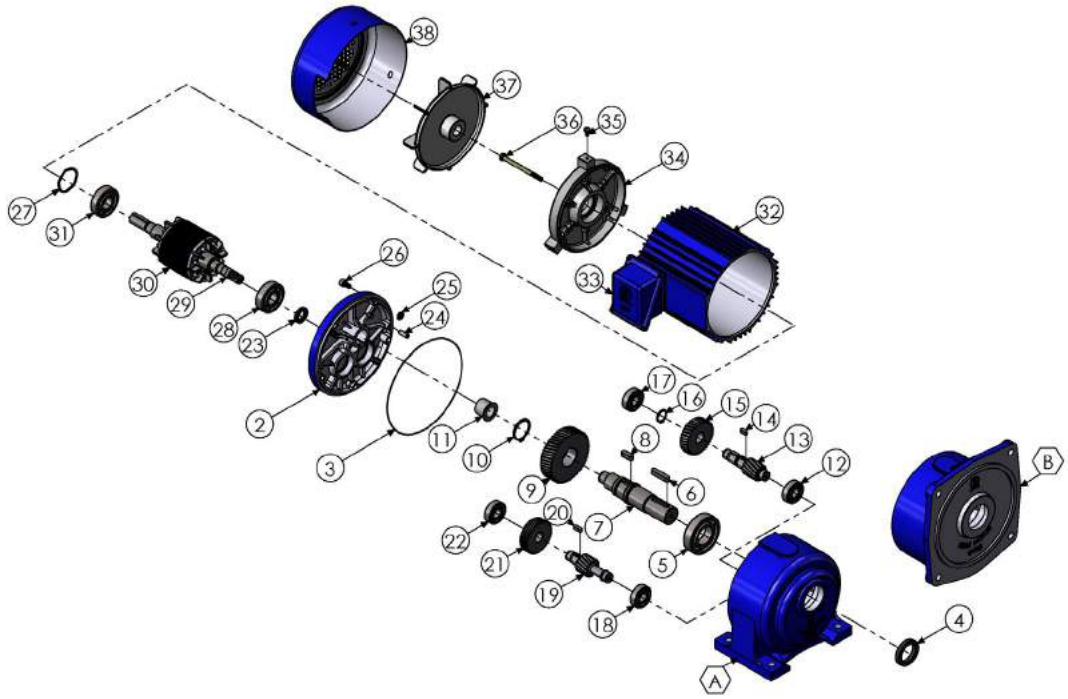
TYPE	V1- 左方 LEFT SIDE	V2- 右方 RIGHT SIDE	V3- 上方 UPPER SIDE	V4- 下方 LOWER SIDE
GH 型 GH TYPE				
GV 型 GV TYPE				

小型齒輪減速(馬達) Small Gear Reducer (Motor)

入線孔方向 WIRE INLET DIRECTION								
								
	LD	LU	RD	RU	UL	UR	DL	DR
								
	LS	LB	RF	RB	UF	UB	DF	DB

接線圖 Wiring Graph				
*****	三相 (3-Phase)		單相 (Single Phase)	
一般型 Common Type	 LOW VOLT - 220V / HIGH VOLT - 380V	 LOW VOLT - 220V / HIGH VOLT - 440V	 LOW VOLT - 110V / HIGH VOLT - 220V	 LOW VOLT - 110V / HIGH VOLT - 220V
附剎車 With Brake	 LOW VOLT - 220V / HIGH VOLT - 380V	 LOW VOLT - 220V / HIGH VOLT - 440V	 LOW VOLT - 110V / HIGH VOLT - 220V	 LOW VOLT - 110V / HIGH VOLT - 220V

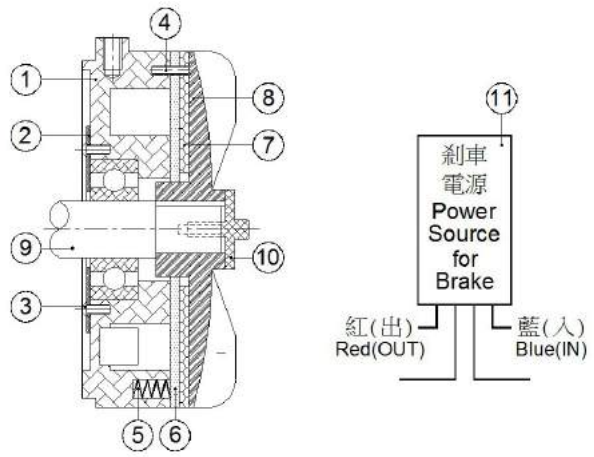
小型齒輪減速（馬達）系統分解圖
Small Gear Reducer (Motor) System Drawing



零件名稱 Name of parts								
No.	組件	Parts	No.	組件	Parts	No.	組件	Parts
A	本體 - 臥式	Horizontal Case	13	第三段齒軸	3RD Stage Pinion Shaft	26	內六角螺栓	Hex-Head Bolt
B	本體 - 立式	Vertical Case	14	第三段齒軸	3RD Stage Pinion Shaft Key	27	波型彈簧	Wave Spring
2	前蓋	Front Cover	15	第二段齒輪	2ND Stage Gear	28	馬達軸軸承	Motor Shaft Bearing
3	O 型環	O-Ring	16	C 型扣環	C-Snap Ring	29	馬達軸	Motor Gear Shaft
4	出力油封	Output Oil Seal	17	第三段齒軸軸承	3RD Stage Pinion Shaft Bearing	30	馬達轉子	Motor Rotor
5	出力軸承	Output Bearing	18	第二段齒軸軸承	2ND Stage Pinion Shaft Bearing	31	馬達軸軸承	Motor Shaft Bearing
6	出力軸鍵	Output Shaft Key	19	第二段齒軸	2ND Stage Pinion Shaft	32	馬達線圈總成	Motor Coil Assembly
7	出力軸	Output Shaft	20	第二段齒軸鍵	2ND Stage Pinion Shaft Key	33	馬達接線盒	Motor Wire Box
8	第三段齒輪鍵	3RD Stage Pinion Key	21	第一段齒輪	1ST Stage Gear	34	馬達後蓋	Motor Rear Cover
9	第三段齒輪	3RD Stage Gear	22	第二段齒軸軸承	2ND Stage Pinion Shaft Bearing	35	風扇蓋螺絲	Fan Cover Screw
10	C 型扣環	C-Snap Ring	23	入力油封	Input Oil Seal	36	馬達螺栓	Motor Bolt
11	出力軸自潤軸承	Output Shaft Oil less Bearing	24	定位銷	Pin	37	風扇	Fan Brake Unit
12	第三段齒軸軸承	3RD Stage Pinion Shaft Bearing	25	O 型環	O-Ring	38	風扇蓋	Motor Fan Cover

內部結構圖
Brake Inner structure

安全剎車器結構圖 Brake Structural Drawing



編號 No.	零件名稱	Name of Parts
1	軸承蓋	Bearing Cover
2	固定墊圈	Fixing Gasket
3	固定螺絲	Fixing Screw
4	固定銷	Fixing Forelock
5	壓縮彈簧	Spring Compression
6	剎車基板	Brake Plate
7	剎車來令	Brake Shoe
8	外扇風葉	Output Fan
9	馬達軸心	Motor Spindle
10	來令片固定螺絲	Brake Shoe Fixing Screw
11	剎車電源（整流器）	Power Device for Brake(Rectifier)

直流安全式剎車器規格 DC Brake Unit Specification

輸出馬力 Capacity (HP)	剎車制動力 Torque (Kg-M)	剎車間隙 Clearance (MM)	剎車時間 Brake Time (Sec)	釋放時間 Release Time (Sec)	剎車線圈 Brake Coil			重量 Weight (KG)
					電壓 Voltage (DC-V)	電流 AMP (A)	阻抗 OHM (Ω)	
200W 1/4HP*4P	0.20	0.2-0.60	0.22	0.12	95±10%	0.17	565	3.5
400W 1/2HP*4P	0.40	0.2-0.60	0.24	0.13	95±10%	0.28	336	4.0
750W 1HP*4P	0.80	0.3-0.65	0.22	0.12	95±10%	0.41	233	5.0
1500W 2HP*4P	1.50	0.3-0.65	0.28	0.15	95±10%	0.57	167	6.0
2200W 3HP*4P	2.20	0.4-0.70	0.28	0.18	95±10%	0.73	130	8.0
3700W 5HP*4P	4.50	0.4-0.70	0.28	0.18	95±10%	0.73	130	10.0

備註 Remark	
	直流剎車器安裝尺寸相同於原有標準馬達 DC Brake Unit Length Same As Original Standard Motor
	適用電壓 Available Voltage 220V,380V,400V,415V,440V,460V
	剎車電壓為 DC90V Brake Coil Voltage : DC90V
	採用非石棉材質剎車來令片 Adopt Material With Non-asbestos Brake Disc
	可訂製特殊剎車器 Available For Special Brake Design

直流剎車器故障排除
Defect solve for DC Brake Unit

直流剎車器故障排除 Defect Solve For DC Brake Unit		
不良原因 Defective Reason	原因分析 Possible Analysis	解決方式 Solution Method
剎車移動 Displacement	來令片磨損 Brake disc worn out	換來令片 Use new brake disc
	間隙過大 Large clearance	調整間隙 Adjust clearance
	來令片沾染油漬 Surface with oil	清潔來令片 Clean brake disc
	負載過大 Over loading	重新設計 Re-design brake unit
	剎車表面歪斜 Brake Disc surface twist	更換零件 Use new parts
	下降衝量過大 Huge momentum	機構重新設計 System re-design
	選用機型錯誤 Select wrong type	選用正確機型 Re-select unit
	環境溫度過高 High temperature	檢討環境溫度 Adjust temperature
剎車器不動作 No Action	未供應電源 No power inside brake	供應電源 Supply power
	來令片磨損 Brake disc worn out	更新來令片 Use new brake disc
	間隙過大 Large clearance	調整間隙 Adjust clearance
	電源電壓不足 Low voltage	提供正確電壓 Use correct voltage
	電源供應器損壞 Power supply damage	更新電源供應器 Use new power supply
	異物入侵 Dirty inside	清潔零件 Clean parts
	使用電壓錯誤 Wrong voltage	使用正確電壓 Use correct voltage
	結線脫落 Connect wire lost	重新結線 Re-connect wire
	來令片卡死 Brake disc locked	清潔零件 Clean parts
	剎車器線燒燬 High temperature	更新剎車器線圈 Adjust temperature

選用條件與計算方式
Calculations & conditions

一、機種選用條件 Conditions for model selection

(1) 依安裝方式、使用條件來選用機種
Select in accordance with conditions & ways to install.

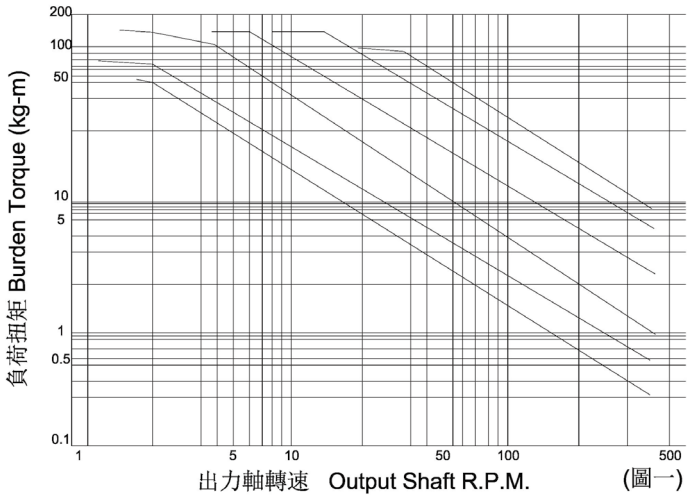
(2) 依照輸出功能及轉速
Using output and RPM.

(3) 依據轉速及負荷扭矩 (圖一) 修正之容量
Using corrected capacity in RPM and torque.

(4) 依據機械的負荷扭矩
Using the burden torque of a machine.

(5) 利用運轉條件之安全係數 (表二)
Using safety inertia by which operation data is calculated.

(6) 依 GD²(慣性值) 與 O.H.L.(懸垂荷重) 相互計算
Using GD² (inertia value) and O.H.L. for cross-calculation.



(圖一)

二、安全係數 Safety facter

本公司之齒輪減速機係依輕負荷 (10H/ 日) 設計，如為其它條件，請依安全係數 (表二) 修正負荷扭矩。
Designing of Li-Xiang' s gear reducers is accordance with light burden (10H/day), if otherwise, modify burden torque with safety inertia.

負荷狀態 Status of burden	安全係數 (Sf) Safety facter			用 途 Purpose
	3H 以下 / 日 Below 3H/day	3-10H/ 日 3-10H/day	10H 以上 / 日 Over 10H/day	
平均負荷 Average load	1.0	1.0	1.2	輸送帶、送料機、壓出機 Conveyor belt, Feeder, Squeezer
輕負荷 Light load	1.0	1.2	1.4	攪拌機、食品機械、昇降機 Agitator, Food machinery, Elevator
超輕負荷 Super light load	1.2	1.35	1.5	起重機、碾磨機、金屬加工機械 Lift, Grinder, Metal processing machinery

三、慣性值 (GD²) Inertia value

當大外徑之物體做連續運轉，當間歇啟動、使用煞車裝置停止時，瞬間產生極大的扭矩，為減速機最大的負荷。請依據所要配合之機械的慣性值，連結方式以及啟動的頻率，選用容許慣性值。
When in a non-stop rotation, intermittent starting or coming to a pause by the action of a brake, an object of big radius can in a moment cause huge torque, or a huge burden to a gear reducer. Select allowable inertia by using by using needed mechanic inertia value, ways of coupling and starting frequency.

容許 GD² (馬達軸入力端換算值) Allowable GD² (Conversion Value of Motor Input) (表三) Table 3

三相 3 Phase	單相 Single Phase	容許 Allowable GD² (Kgm²)
100W	100W	0.0031
200W	200W	0.0035
400W	400W	0.0048
750W	750W	0.0101
1500W	1500W	0.0212
2200W	*	0.0262
4000W	*	0.0691
5500W	*	0.1519
7500W	*	0.1862

依據運轉條件容許 GD^2 修正係數 Allowable GD^2 modified coefficient （表四）Table 4

連結方式 Coupling	使用頻率 Frequency	修正係數 Modified Coefficient
直接連結 Direct Coupling	70 回 / 日 以下 Below 70 times/day	1.0
	70 回 / 日 以上 Over 70 times/day	1.5
方式不拘 Unlimited	70 回 / 日 以下 Below 70 times/day	1.5
	70 回 / 日 以上 Over 70 times/day	2.0

1. 減速機輸入轉速在 1800R.P.M 以上使用時，以上表乘以 (1800/ 輸入 R.P.M)^2 為容許值。
   例：輸入轉速 3600R.P.M.，GD^2= 原值 *(1800/3600)^2=1/4 原值
   If input RPM of a running reducer is over 1800RPM,multiply modified coefficient by (1800/input RPM)^2 to get an allowable.
   Example: input RPM 3600RPM, GD^2=original value * (1800/3600)^2=1/4 original value
2. 馬達輸入軸 GD^2= 輸出軸之 GD^2 * (減速比)^2。例：減速比為 1：20 時，其值為 1/400
   GD^2 value of motor input shaft = GD^2 value of motor output shaft * ratio^2
   Example: if ratio is 1:20, its value is 1/400.

四、GD^2 (飛輪效果) 之計算方式 Calculation of GD^2 (Flywheel Effect)

$$GD^2=4gI$$

G：重量 Weight (kg)	D：回轉直徑 Rotary diameter (M)	g：重力加速度 Gravity acceleration (9.8m/sec^2)	I：慣性力矩 Inertia torque (kg.m.sec^2)

五、懸垂荷重 (O.H.L.)

懸垂荷重係指作用於軸心上之懸垂負載重量。減速機輸出軸與所配合機械之連結方式，如使用鏈條、齒輪、皮帶輪等，均須考慮是否超出負載能力。

O.H.L means overall hung load on an output shaft. Exceeded burden capacity should be taken seriously, when coupling by chain, gear or belt, is needed between a reducer shaft and a machine.

$$O.H.L.= (T \times K_1 \times K_2) / R \text{ (kg)}$$

T：減速機軸連結扭矩 Coupling torque of reducer shaft (kg-m)	K1：連結方式之係數 (表五) Inertia of coupling. (Table 5)
R：減速機軸被安裝之鏈條、滑輪、齒輪等螺距圓半徑 (m) Circular pitch radius of the sprocket, pulley or gear linked to a reducer shaft.	K2：負載位置之係數 (表六) Inertia of burden site. (Table 6)

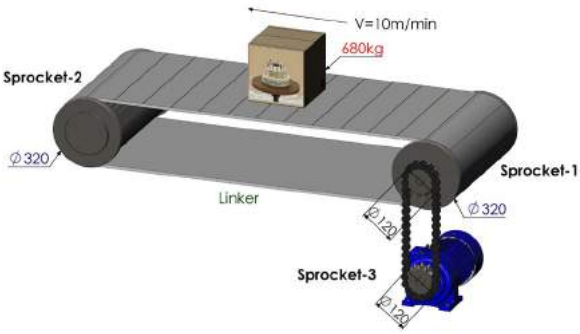
係數 Inertia K1 （表五）Table 5

連結方式 Coupling	鏈條、齒輪皮帶 Sprocket/belt	齒輪 Gear	V 型輸送帶 V-conveyor belt	平面型輸送帶 Flat conveyor belt
K1	1.00	1.25	1.50	2.50

係數 Inertia K2 （表六）Table 6

作用位置 Burden site	軸根 Shaft butt	軸中央 Middle of shaft	軸端 Shaft end
K2	0.75	1.00	1.50

六、計算範例 Examples of calculation



用 途 Purpose	輸送機 (輕負荷) Conveyor (light load)
輸送帶速度 Conveyor-belt speed	10m/min
搬運重量 Weight to carry	680kg
連結方式 Coupling	鏈輪帶動 (裝配於軸中央處) Sprocket drive (installed in the middle of a reducer shaft)
運轉時間 Duration of running	12 小時 / 日 (hours/day)
間歇啟動頻率 Intermittent starting	360 回 / 日 (times/day)
輸入電源 Input voltage	三相 220V，60Hz (3-phase)
摩擦係數 Abrasion inertia	0.2 (假設值) supposed value

* 其餘條件暫不加以計算 Conditions other than the above are not given

機種的選擇 Model selection

請依實際裝配空間條件選用臥式 (GH) 或立式 (GV) 機型。
Choose Horizontal (GH) or Vertical (GV) models by actual installation space.

減速比之計算 Ratio calculation

輸送機軸轉速 n =v/(π*D) =10*1000/(π* 320) ≒ 9.95 r.p.m.,
設輸送機軸與減速機輸出軸之鏈輪相同尺寸 , 故減速比應為 9.95/1800 ≒ 1/180
Shaft rotation of a conveyor. n =v/(π*D) =10*1000/(π* 320) ≒ 9.95 r.p.m. Given that a conveyor shaft has same size as a sprocket to a gear output shaft, reduction ratio should be 9.95/1800 ≒ 1/180

扭轉力矩的計算 Torque calculation

TL =F*R* 摩擦係數 =(680+2*5+10)*[320/(2*1000)]*0.2 =22.4 Kg-m, 負荷狀態以負荷情況之補正係數 (表二) 補正
T =TL*Sf* 鏈輪比 (鏈輪 3/ 鏈輪 1) =22.4*1.4*(120/120) =31.36 Kg-m
依負荷扭矩 T =31.36 Kg-m 及減速比 Ratio =1/180 從輸出特性表選定為 0.4kw, 再依扭矩來考慮，
因而選定為 GH-32-400-180S
TL =F*R*friction inertia =(680+2*5+10)*[320/(2*1000)]*0.2 =22.4 Kg-m,
Using the inertia of Table 2 for correct burden status.
T =TL*Sf*Sprocket ratio (sprocket 3/ sprocket 1) =22.4*1.4*(120/120) =31.36 Kg-m
According to burden torque T=31.36Kgm and reduction ratio=1/180,
0.4kw is chosen from output characteristics Table, if considering torque, GH-32-400-180S is decided.

GD^2 的計算 GD^2calculation

【輸送機總 GDL^2】,
GDL^2 =$W1D^2$+1/2*$W2D^2$+1/2*$W3D^2$+$W4D^2$ = 680*0.32^2+1/2*5*0.32^2+1/2*5*0.32^2+10*0.32^2 =71.168 Kg-m
換算成馬達軸時則為 GD^2 =GDL^2* 減速比 ^{2}* 鏈輪比 ^{2} (鏈輪 3/ 鏈輪 1)
=71.168*$(1/180)^2$ *$(120/120)^2$ =2.196543*10^{-3} Kg-m
依運轉條件 (表四) 來補正 GD^2 =2.196543*10^{-3}*2 ≒ 0.004393 Kg-m^2, 從 (表三) 以 GD^2 來選定時，則為 0.4kw
【GDL^2 OF CONVEYOR TYPES】,GDL^2 =$W1D^2$+1/2*$W2D^2$+1/2*$W3D^2$+$W4D^2$
= 680*0.3^2+1/2*5*0.3^2+1/2*5*0.3^2+10*0.3^2 =71.168 Kg-m
After it is converted to the value for motor shaft,
It should be GD^2 =GDL^2*reduction ratio^2*sprocket ratio^2(sprocket 3/sprocket 1)
=71.168*$(1/180)^2$ *$(120/120)^2$ =2.196543*10^{-3} Kg-m
To correct by running conditions of Table 4, GD^2 =2.196543*10^{-3}*2 ≒ 0.004393 Kg-m^2,
If using GD^2 of Table 3, then, 0.4kw is decided.

O.H.L. 的計算 O.H.L. calculation

【懸垂荷重 O.H.L.】,O.H.L. =(T*K1*K2)/R =(31.36*1*1)/[120/(2*1000)] =522.67 Kg, 從 O.H.L. 來選定時為 GH-32-400-180S
From O.H.L.GH-32-400-180S is chosen.

綜合結論 Conclusion

從扭矩選定應為 0.4KW、從 GD^2 選定應為 0.4KW、從 O.H.L. 選定應為 0.4KW 後、再選定符合上列所有條件的機種 ,
即 GH-32-400-180S 或 GV-32-400-180S
Choosing form torque, it should be 0.4KW, Choosing from GD^2, it should be 0.4KW, After choosing 0.4KW, from O.H.L., choose again the model(s) that meet(s) all the above conditions. And right models are GH-32-400-180S or GV-32-400-180S.

減速機故障排除
Trouble shouting for Gear Motor

不良原因 Defective Reason		原因分析 Possible Analysis	解決方式 Solution Method
漏油 Leakage	油封漏油 Oil seal leakage	油封硬化 Oil seal too harden	更新損壞油封 Replace wounded oil seal
	本體漏油 Housing leakage	本體有砂孔 Housing had sand hole	更換有砂孔本體 Replace sand hole housing
	結合面漏油 Connect surf axe leakage	O 型環損壞 O-ring broken	更換 O 型環 Replace wounded O-ring
噪音 Noise	齒輪敲擊聲 Knocking	齒輪表面受損 Hurt gear surface	更換受損齒輪組 Replace gear set
	連續性雜音 Continually	軸承損壞 Bad bearing	更換受損軸承 Replace bearing
	週期性雜音 Periodically	異性附著齒面 Particle inside	檢查齒輪齒面 Check gear
	斷續性雜音 Intermittently	潤滑油脂不潔 Dirty lubricant	更換新潤滑油脂 Replace lubricant
	嘶嘶聲響 Neigh	油量不足 Lack of lubricant	添加潤滑油脂 Fill with lubricant
過熱 Over-Heating	油封 Bad oil seal	油封太緊 Oil seal too tight	更換太緊油封 Replace tighten oil seal
	本體過熱 Housing too heat	過負載 Over load running	重新計算負載馬力 Re-calculate loading
	缺乏潤滑油脂 Less lubricant	油量不足 Lack of lubricant	加入潤滑油脂 Fill with lubricant
	馬達過熱 Motor too heat	馬達不良 Defective motor	更換新馬達 Replace new motor
振動 Vibrating	固定底座振動 Mounting base movement	安裝平面歪斜 Bad surface mounting	重新調整固定底座 Re-adjust mounting base
	出力軸振動 Output shaft moving	軸承損壞 Bearing broken	更換受損軸承 Replace wounded bearing
	內部齒輪零件振動 inside gear parts movement	齒輪受損 Gear wounded	更換受損齒輪 Replace wounded gear
	本體振動 Housing vibrating	齒輪組裝不良 Bad gear assembly	重新調整齒輪 Re-adjust gear set

減速比 (I)	I = N / 1800	V = 速度 Speed (m/min)	D = 滾輪直徑 (MM) Roller diameter
迴轉速度 (RPM)	N = V / πD	I = 減速比 Ratio	R = 滾輪半徑 (MM) Roller radius
輸出扭矩 (Kg-M)	T = W x R x K	T = 輸出扭力 (Kg-m) Output torque	Kw1 (HP1) = 輸入馬力 Input capacity
輸入馬力 (公制)	HP1 = N x T / 716	F = 荷重係數 Service factor	Kw2 (HP2) = 輸出馬力 Output capacity
輸入馬力 (英制)	Kw1 = N x T / 974	W = 荷重 (Kg) Load	1Kw = 1.34HP
輸出馬力 (公制)	HP2 = HP1 x F / E	E = 效率 Efficiency(%)	1NM=0.102Kg-M
輸出馬力 (英制)	Kw2 = Kw1 x F / E	N = 出力軸轉速 (RPM)	1DaNm=10NM

減速機減速比 / 馬力 / 最大可承受扭力對照表
Sequence Balance Table of Ratio / HP & Maximum Torque

減速機輸出扭矩表 Output Torque of Gear Reduce Table

減速比 Ratio	輸出轉速 Output R.P.M.		輸出扭矩 Output Torque													
			0.1KW[1/8HP]		0.2KW[1/4HP]		0.4KW[1/2HP]		0.75KW[1HP]		1.5KW[2HP]		2.2KW[3HP]		3.7KW[5HP]	
	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
5	300	360	0.31	0.26	0.62	0.51	1.2	1	2.3	1.9	4.8	3.5	6.6	5.5	11	10
10	150	180	0.62	0.51	1.2	1	2.5	2.1	4.6	3.9	8.8	7.1	13.2	10.7	22	20
12.5	120	144	0.77	0.66	1.54	1.24	3.1	2.5	5.7	4.9	11	8.9	16.5	13.3	27.3	24.9
15	100	120	0.93	0.77	1.85	1.5	3.7	2.9	6.9	5.8	13.2	10.7	19.8	16	32.6	29.8
20	75	90	1.2	1	2.47	1.99	4.94	4	9.3	7.7	17.6	14.2	26.5	21.4	43.6	36
25	60	72	1.5	1.3	3	2.49	6.17	4.9	11.6	9.6	22.1	17.8	33.1	26.7	53.9	49.53
30	50	60	1.9	1.5	3.7	2.99	7.41	5.9	13.9	11.6	26.5	21.4	39.7	32.41	64.7	58.8
40	37.5	45	2.4	2	4.94	3.99	9.88	7.98	17.9	14.9	35.3	28.5	53	42.8	86.3	78.4
50	30	36	3	2.5	6.17	4.98	12.3	9.97	22.4	18.7	44.2	35.7	66.3	53.3	107	97.0
60	25	30	3.6	3	7.4	5.98	14.8	11.9	26.9	22.4	53	42.8	79.5	64.2	127	115
75	20	24	4.6	3.7	9.2	7.5	18.5	14.9	35.1	28.3	66.3	53.5	99.4	80.3	*	*
90	16.6	20	5.5	4.5	11.1	9	22.2	17.9	42.1	34	79.5	64.2	119.3	96.3	*	*
100	15	18	6	5	12.3	9.9	24.7	19.9	46.8	37.8	88.4	71.4	132.6	107.1	*	*
120	12.5	15	7.2	6	14.8	11.9	29.6	23.9	58.4	47.3	106	85.6	*	*	*	*
150	10	12	9.2	7.5	18.5	14.9	37	29.9	70.2	56.7	132.6	107.1	*	*	*	*
180	8.3	10	11	9	22.2	17.9	44.4	35.9	84.2	68	132.6	107.1	*	*	*	*
200	7.5	9	11.9	10	24.7	19.9	49.4	39.9	93.6	75.6	132.6	107.1	*	*	*	*
300	5	6	17.5	14.9	35.1	28.3	70.2	56.7	132.6	107.1	*	*	*	*	*	*
1200	1.25	1.5	58.5	47.6	70.2	56.7	70.2	56.7	132.6	107.1	*	*	*	*	*	*
1800	0.83	1	58.5	47.6	70.2	56.7	70.2	56.7	132.6	107.1	*	*	*	*	*	*

出力軸懸垂荷重表 Output Shaft Overhung Load Table

減速比 Ratio	輸出扭矩 Output Torque						
	0.1KW [1/8HP]	0.2KW [1/4HP]	0.4KW [1/2HP]	0.75KW [1HP]	1.5KW [2HP]	2.2KW [3HP]	3.7KW [5HP]
5	60	60	90	130	180	220	270
10	90	90	120	180	250	320	570
12.5	100	100	130	180	290	340	675
15	100	100	140	220	290	360	780
20	120	120	150	240	330	410	850
25	130	130	170	250	390	480	1100
30	140	180	260	410	520	710	1200
40	150	190	290	430	600	740	1280
50	260	200	320	470	720	880	1400
60	220	220	350	560	720	1000	1400
75	220	220	350	560	720	1000	*
90	250	250	350	600	720	1000	*
100	250	250	350	600	720	1000	*
120	250	340	600	720	1000	*	*
150	250	350	600	720	1000	*	*
180	250	350	600	720	1000	*	*
200	250	350	600	720	1000	*	*
300	350	600	720	1000	*	*	*
1200	350	600	720	1000	*	*	*
1800	350	600	720	1000	*	*	*

潤滑油選定及重量表
Selection of Lubricant Oil

重量表 / 油量表 (Weight / Lubricant Table)										
馬力 Capacity	減速比 Ratio	出力軸 Output Shaft	重量 Weight (Kg)						油量 Lubricant (L)	
			GH	GHD	GHM	GV	GVD	GVM	GH・GHD・GHM	GV・GVD・GHM
100W 1/8HP	5-40	18	5.2	2.0	2.7	5.2	2.0	2.7	0.13	0.13
	5-200	22	6.1	2.9	3.6	6.5	3.3	4.0	0.22	0.22
	250-1800	28	10.1	6.9	7.6	10.9	7.8	8.4	0.53	0.53
200W 1/4HP	5-30	18	6.8	2.0	2.7	6.8	2.0	2.7	0.13	0.13
	5-100	22	7.7	2.9	3.6	8.9	3.3	4.0	0.22	0.22
	100-200	28	10.1	5.6	6.1	10.9	6.4	6.9	0.53	0.53
	250-1800	32	25.6	20.8	21.5	25.5	20.7	21.4	1.02	1.02
400W 1/2HP	5-25	22	9.0	2.9	3.5	9.2	3.3	3.9	0.22	0.22
	5-90	28	12.8	5.6	6.1	13.1	6.4	6.9	0.53	0.53
	10-200	32	25.1	21.1	22.2	25.0	21.2	22.1	0.80	0.80
	250-1800	40	48.0	40.8	41.3	48.4	41.2	41.7	2.00	2.00
750W 1HP	5-25	28	14.2	5.6	6.9	15.0	6.4	7.7	0.53	0.53
	30-120	32	27.4	21.1	23.7	26.8	21.2	23.6	0.80	0.80
	40-200	40	44.8	40.1	44.7	45.2	40.5	45.1	2.00	2.00
	250-1800	50	95.2	88.9	91.5	94.8	88.5	91.1	4.00	4.00
1500W 2HP	5-30	32	32.7	21.1	23.6	33.3	21.2	23.5	0.80	0.80
	40-100	40	51.3	40.1	44.6	52.9	40.5	45.0	2.00	2.00
	120-200	50	83.2	75.3	80.0	82.8	74.9	79.6	3.20	3.20
2200W 3HP	5-40	40	54.4	40.1	48.7	50.8	40.5	49.1	2.00	2.00
	50-100	50	85.7	75.3	85.6	85.3	74.9	85.2	3.20	3.20
3700W 5HP	5-20	40	56.4	40.1	48.7	57.7	40.5	49.1	2.00	2.00
	5-60	50	93.0	75.3	85.6	92.4	74.9	85.2	3.20	3.20

潤滑油 (Lubricant)

產品出廠前已添加 (HT-750-0) 潤滑油脂，在正常條件下最初運轉 20,000 小時可不必更換潤滑油脂，但在特殊環境條件下運轉時，如高溫、長時間運轉，衝擊負荷等，請每 10,000-15,000 小時更換油脂。

All Reducers filled with lubricant (HT-750-0) before delivery, normally, it no need to replace lubricant for first 20,000 hrs running. But if working in special application, such as: high temperature, 24 hrs running, heavy-duty impact…etc. Then lubricants need to be changed in every 10,000-15,000 working hours.

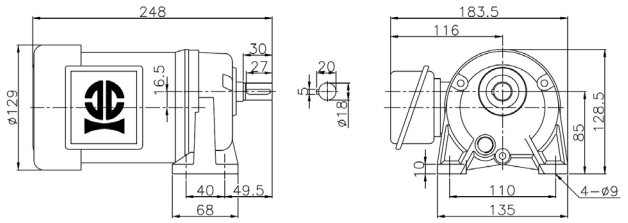
型號 Type	標準出力軸徑 STD Output Shaft	出力軸培林 Output Shaft Bearing	允許最大軸徑 MAX Available Diameter
18	Ø18	6004	Ø20
22	Ø22	6005	Ø25
28	Ø28	6206	Ø30
32	Ø32	6207	Ø35
40	Ø40	6209	Ø45
50	Ø50	6211	Ø55

臥式 / 立式三相減速馬達 GH…S/GV…S
Horizontal/Vertical Type With Aluminum / 3-Phase Motor

0.1KW(1/8HP)	
臥式 Horizontal Type	
Type: GH...S	

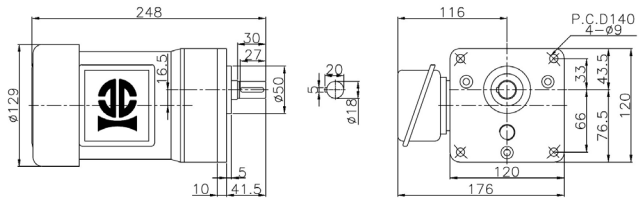
0.1KW(1/8HP)	
立式 Vertical Type	
Type: GV...S	

圖 S1	GH-18-100-5S~40S
18	



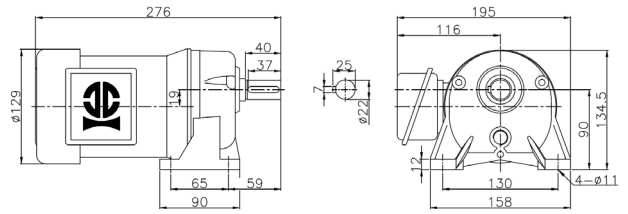
5.2Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30,40

圖 S4	GV-18-100-5S~40S
18	



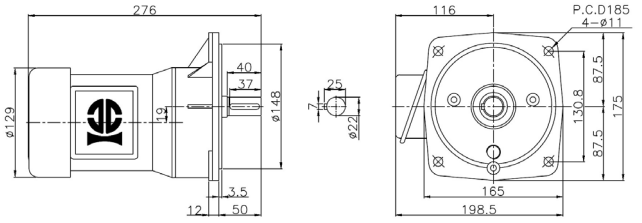
5.2Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30,40

圖 S2	GH-22-100-50S~200S
22	



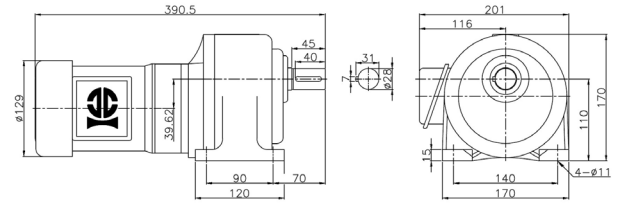
6.1Kg / 0.22L	RATIO	50,60,75,90,100,120,150,180,200

圖 S5	GV-22-100-50S~200S
22	



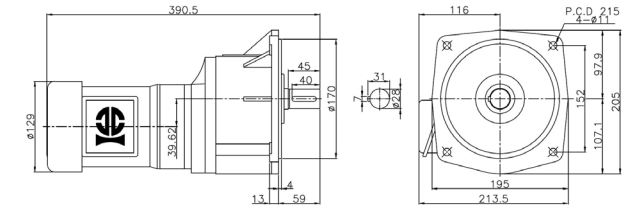
6.5Kg / 0.22L	RATIO	50,60,75,90,100,120,150,180,200

圖 S3	GH-28-100-250S~1800S
28	



10.1Kg / 0.53L	RATIO	250,300,…,1500,1800

圖 S6	GV-28-100-250S~1800S
28	



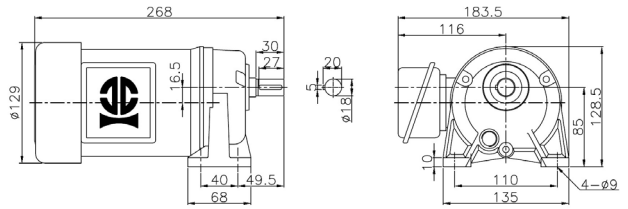
10.9Kg / 0.53L	RATIO	250,300,…,1500,1800

小型齒輪減速(馬達) Small Gear Reducer (Motor)

0.2KW(1/4HP)	
臥式 Horizontal Type	
Type: GH...S	

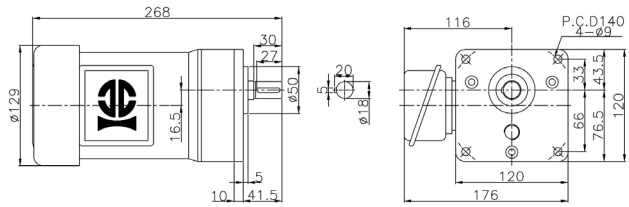
0.2KW(1/4HP)	
立式 Vertical Type	
Type: GV...S	

圖 S7	GH-18-200-5S~30S
18	



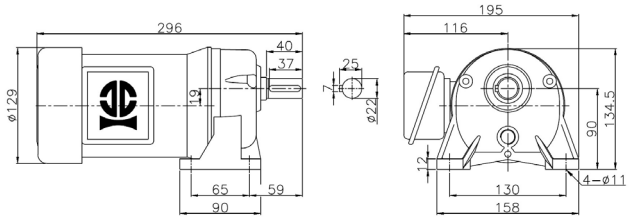
6.8Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30

圖 S11	GV-18-200-5S~30S
18	



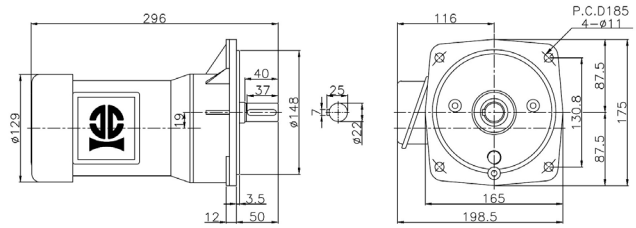
6.8Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30

圖 S8	GH-22-200-5S~100S
22	



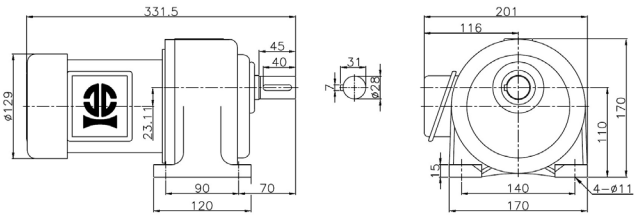
7.7Kg / 0.22L	RATIO	5,10,12.5,15,20,25,30,40,50,60,75,90,100

圖 S12	GV-22-200-5S~100S
22	



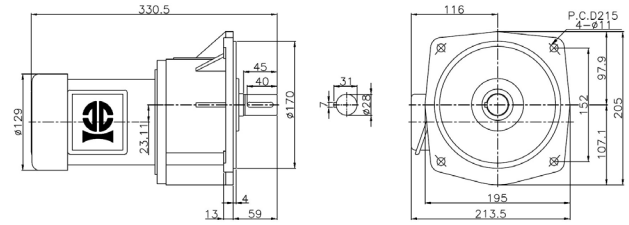
8.9Kg / 0.22L	RATIO	5,10,12.5,15,20,25,30,40,50,60,75,90,100

圖 S9	GH-28-200-100S~200S
28	



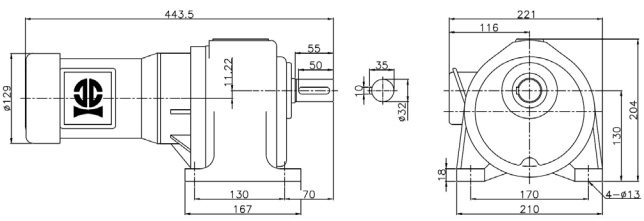
10.1Kg / 0.53L	RATIO	100,120,150,180,200

圖 S13	GV-28-200-100S~200S
28	



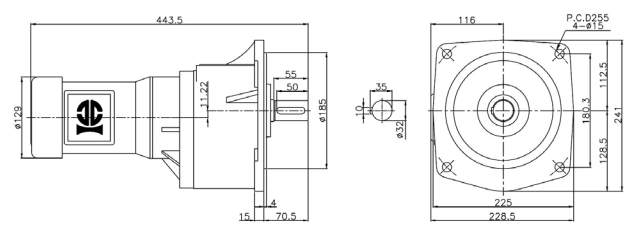
10.9Kg / 0.53L	RATIO	100,120,150,180,200

圖 S10	GH-32-200-250S~1800S
32	



25.6Kg / 1.02L	RATIO	250,300,···,1500,1800

圖 S14	GV-32-200-250S~1800S
32	

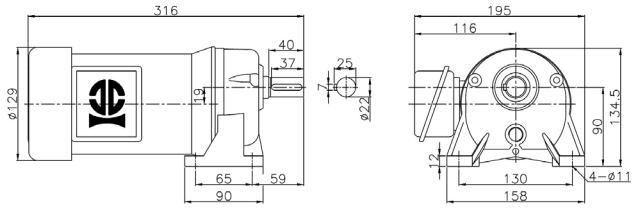


25.5Kg / 1.02L	RATIO	250,300,···,1500,1800

0.4KW(1/2HP)	
臥式 Horizontal Type	
Type: GH...S	

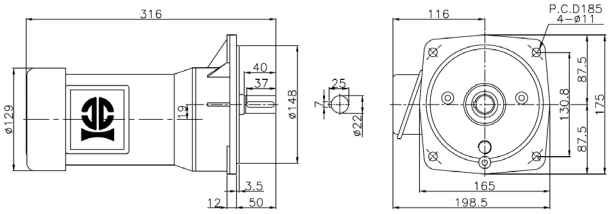
0.4KW(1/2HP)	
立式 Vertical Type	
Type: GV...S	

圖 S15	GH-22-400-5S~25S
22	



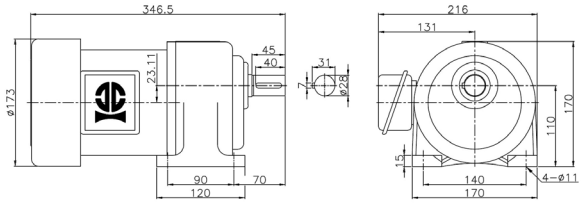
9.0Kg / 0.22L	RATIO	5,10,12.5,15,20,25

圖 S19	GV-22-400-5S~25S
22	



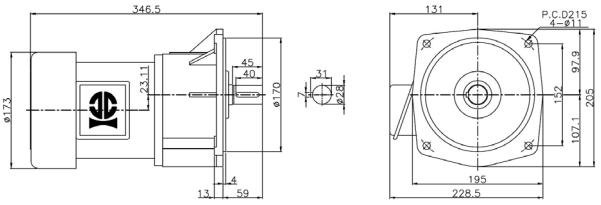
9.2Kg / 0.22L	RATIO	5,10,12.5,15,20,25

圖 S16	GH-28-400-5S~90S
28	



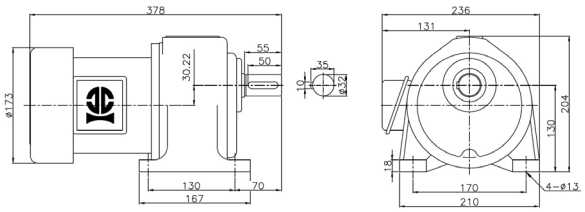
12.8Kg / 0.53L	RATIO	5,10,12.5,15,20,25,30,40,50,60,75,90

圖 S20	GV-28-400-5S~90S
28	



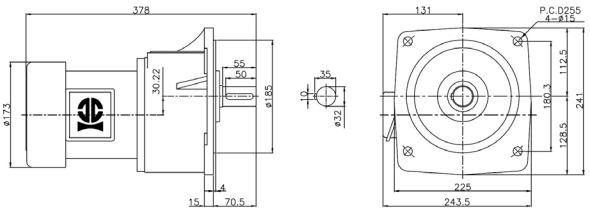
13.1Kg / 0.53L	RATIO	5,10,12.5,15,20,25,30,40,50,60,75,90

圖 S17	GH-32-400-100S~200S
32	



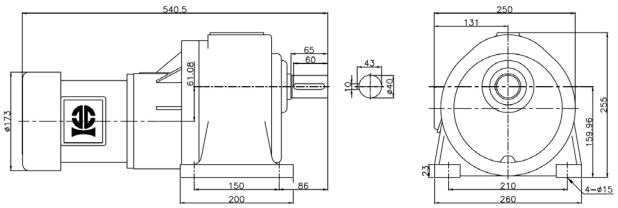
25.1Kg / 0.80L	RATIO	100,120,150,180,200

圖 S21	GV-32-400-100S~200S
32	



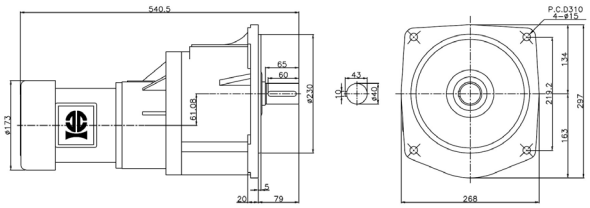
25.0Kg / 0.80L	RATIO	100,120,150,180,200

圖 S18	GH-40-400-250S~1800S
40	



48.0Kg / 2.00L	RATIO	250,300,···,1500,1800

圖 S22	GV-40-400-250S~1800S
40	



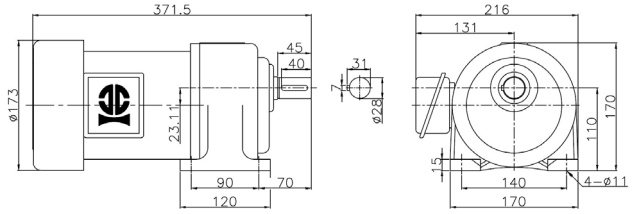
48.4Kg / 2.00L	RATIO	250,300,···,1500,1800

小型齒輪減速(馬達) Small Gear Reducer (Motor)

0.75KW(1HP)	
臥式 Horizontal Type	
Type: GH...S	

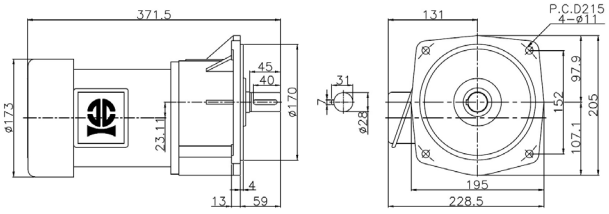
0.75KW(1HP)	
立式 Vertical Type	
Type: GV...S	

圖 S23	GH-28-750-5S~25S
28	



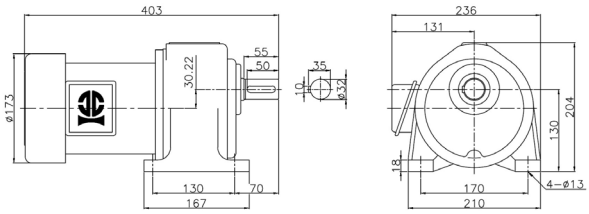
14.2Kg / 0.53L	RATIO	5,10,12.5,15,20,25

圖 S27	GV-28-750-5S~25S
28	



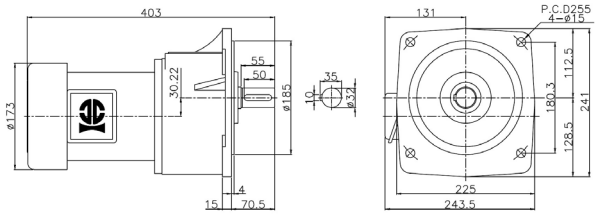
15.0Kg / 0.53L	RATIO	5,10,12.5,15,20,25

圖 S24	GH-32-750-30S~120S
32	



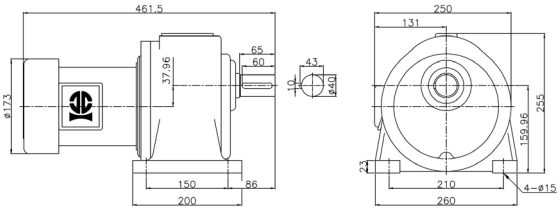
27.4Kg / 0.80L	RATIO	30,40,50,60,75,90,100,120

圖 S28	GV-32-750-30S~120S
32	



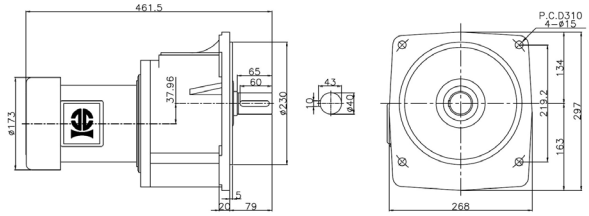
26.8Kg / 0.80L	RATIO	30,40,50,60,75,90,100,120

圖 S25	GH-40-750-40S~200S
40	



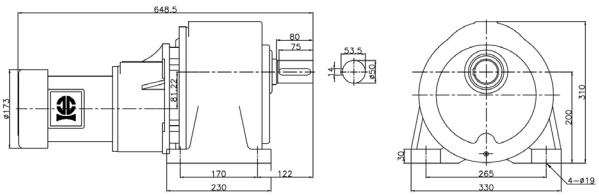
44.8Kg / 2.00L	RATIO	40,50,60,75,90,100120,150,180,200

圖 S29	GV-40-750-40S~200S
40	



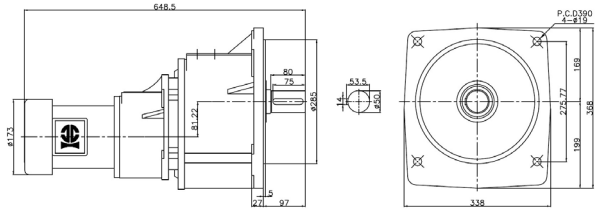
45.2Kg / 2.00L	RATIO	40,50,60,75,90,100,120,150,180,200

圖 S26	GH-50-750-250S~1800S
50	



95.2Kg / 4.00L	RATIO	250,300,⋯,1500,1800

圖 S30	GV-50-750-250S~1800S
50	

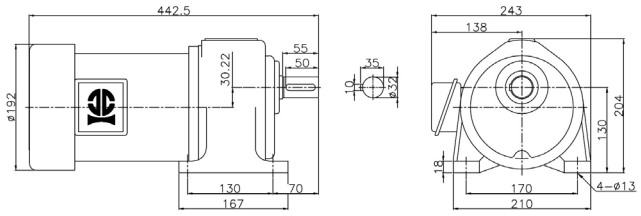


94.8Kg / 4.00L	RATIO	250,300,⋯,1500,1800

1.5KW(2HP)	
臥式 Horizontal Type	
Type: GH...S	

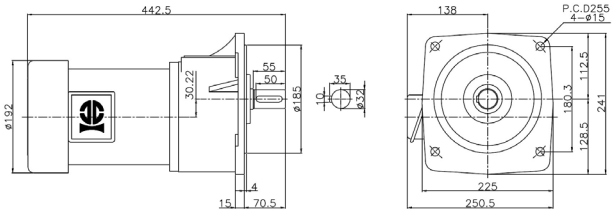
1.5KW(2HP)	
立式 Vertical Type	
Type: GV...S	

圖 S31	GH-32-1500-5S~30S
32	



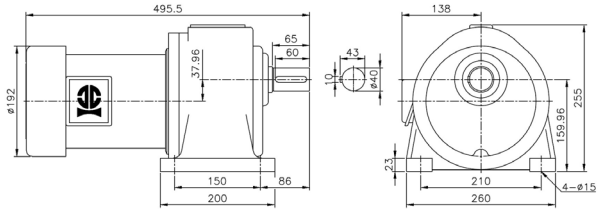
32.7Kg / 0.80L	RATIO	5,10,12.5,15,20,25,30

圖 S34	GV-32-1500-5S~30S
32	



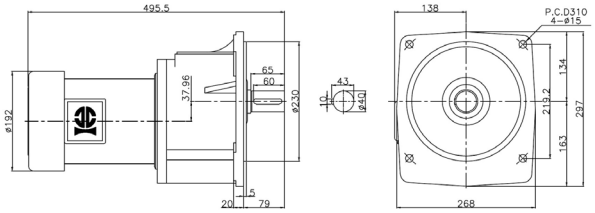
33.3Kg / 0.80L	RATIO	5,10,12.5,15,20,25,30

圖 S32	GH-40-1500-40S~100S
40	



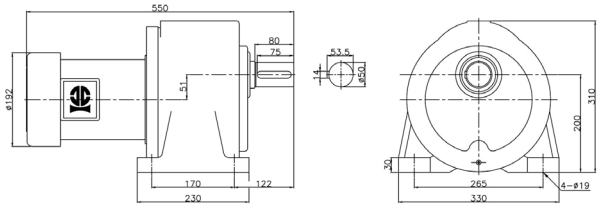
51.3Kg / 2.00L	RATIO	40,50,60,75,90,100

圖 S35	GV-40-1500-40S~100S
40	



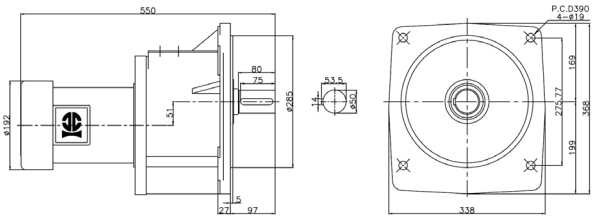
52.9Kg / 2.00L	RATIO	40,50,60,75,90,100

圖 S33	GH-50-1500-120S~200S
50	



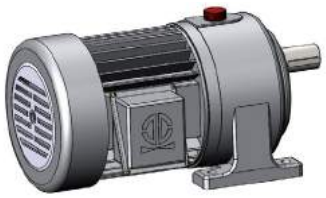
83.2 / 3.20L	RATIO	120,150,180,200

圖 S36	GV-50-1500-120S~200S
50	



82.8Kg / 3.20L	RATIO	120,150,180,200

小型齒輪減速(馬達) Small Gear Reducer (Motor)

2.2KW(3HP)	
臥式 Horizontal Type	
Type: GH...S	

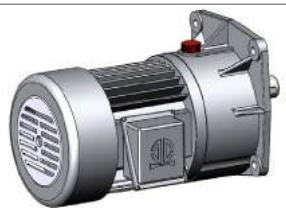
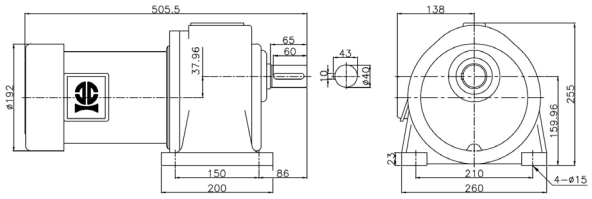
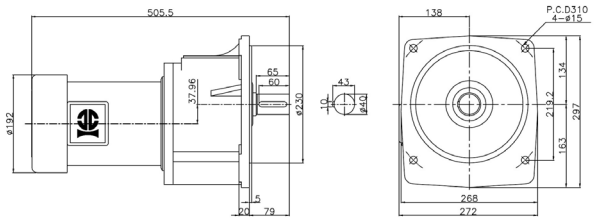
2.2KW(3HP)	
立式 Vertical Type	
Type: GV...S	

圖 S37	GH-40-2200-5S~40S
40	



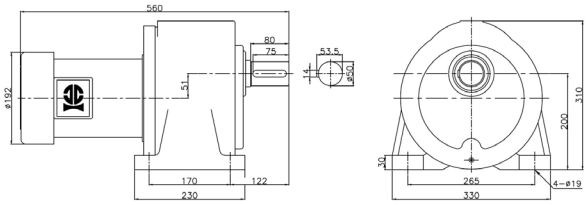
54.4Kg / 2.00L	RATIO	5,10,12.5,15,20,25,30,40

圖 S39	GV-40-2200-5S~40S
40	



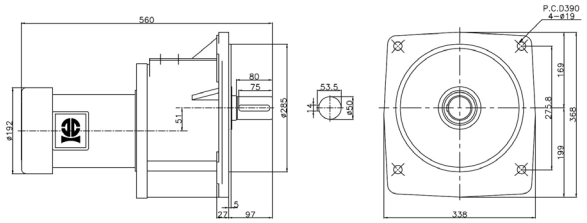
54.4Kg / 2.00L	RATIO	5,10,12.5,15,20,25,30,40

圖 S38	GH-50-2200-50S~100S
50	



85.7Kg / 3.20L	RATIO	50,60,75,90,100

圖 S40	GV-50-2200-50S~100S
50	

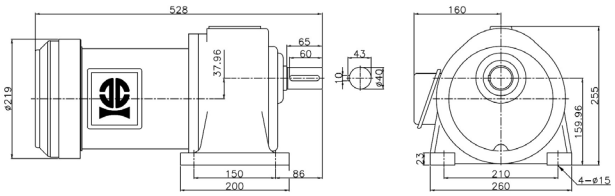


85.7Kg / 3.20L	RATIO	50,60,75,90,100

3.7KW(5HP)	
臥式 Horizontal Type	
Type: GH...S	

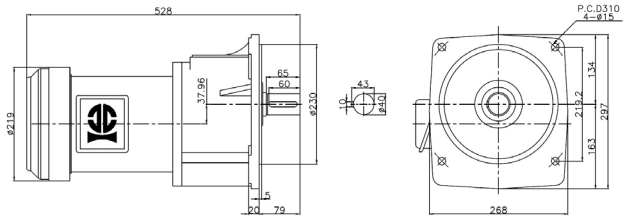
3.7KW(5HP)	
立式 Vertical Type	
Type: GV...S	

圖 S41	GH-40-3700-5S~20S
40	



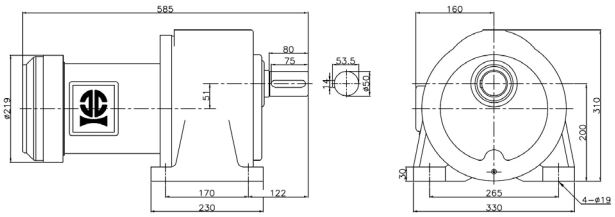
56.4Kg / 2.00L	RATIO	5,10,12.5,15,20

圖 S43	GV-40-3700-5S~20S
40	



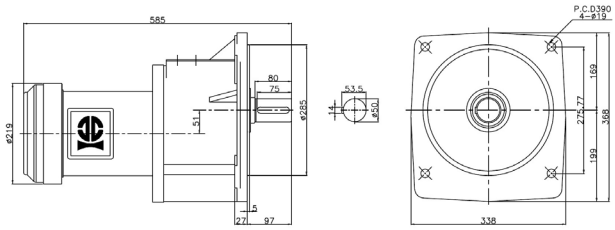
56.4Kg / 2.00L	RATIO	5,10,12.5,15,20

圖 S42	GH-50-3700-5S~60S
50	



93.0Kg / 3.20L	RATIO	5,10,12.5,15,20,25,30,40,50,60

圖 S44	GV-50-3700-5S~60S
50	



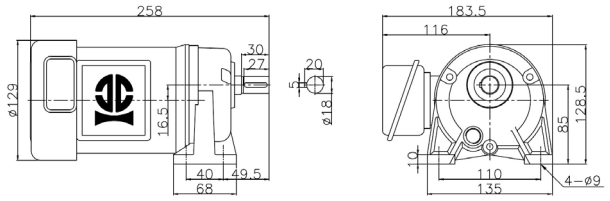
93.0Kg / 3.20L	RATIO	5,10,12.5,15,20,25,30,40,50,60

臥式 / 立式三相減速馬達附剎車 GH…SB/GV…SB
Horizontal/Vertical Type With Aluminum / 3-Phase Brake Motor

0.1KW(1/8HP)	
臥式 Horizontal Type	
Type: GH...S	

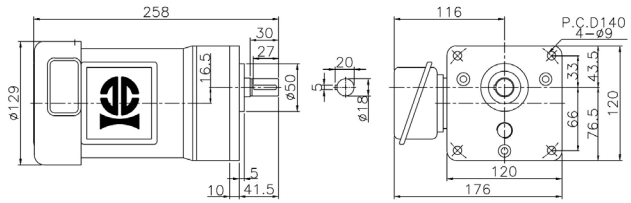
0.1KW(1/8HP)	
立式 Vertical Type	
Type: GV...S	

圖 SB1	GH-18-100-5S~40S
18	



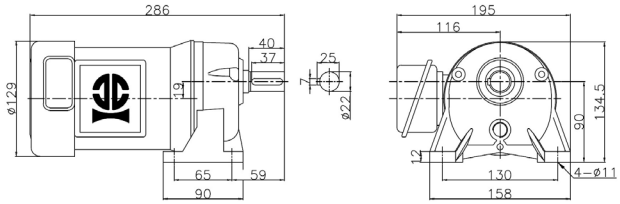
6.7Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30,40

圖 SB4	GV-18-100-5S~40S
18	



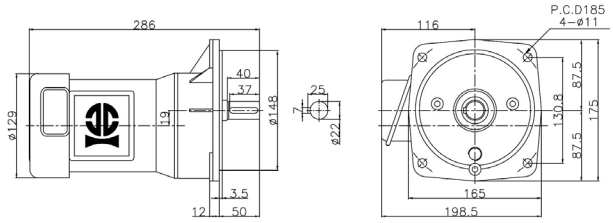
6.7Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30,40

圖 SB2	GH-22-100-50S~200S
22	



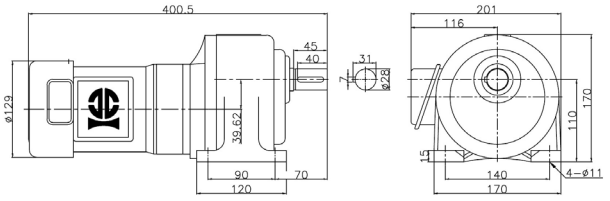
7.6Kg / 0.22L	RATIO	50,60,75,90,100,120,150,180,200

圖 SB5	GV-22-100-50S~200S
22	



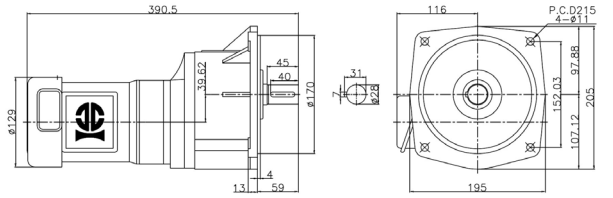
8.0Kg / 0.22L	RATIO	50,60,75,90,100,120,150,180,200

圖 SB3	GH-28-100-250S~1800S
28	



11.6Kg / 0.53L	RATIO	250,300,···.,1500,1800

圖 SB6	GV-28-100-250S~1800S
28	



12.4Kg / 0.53L	RATIO	250,300,···,1500,1800

0.2KW(1/4HP)	
臥式 Horizontal Type	
Type: GH...SB	

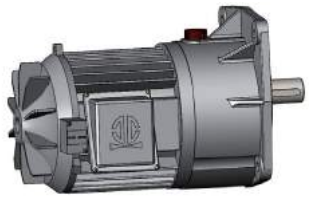
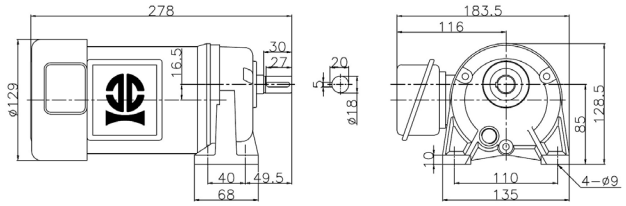
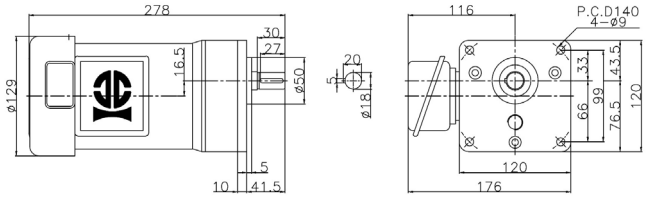
0.2KW(1/4HP)	
立式 Vertical Type	
Type: GV...SB	

圖 SB7 18	GH-18-200-5S~30S



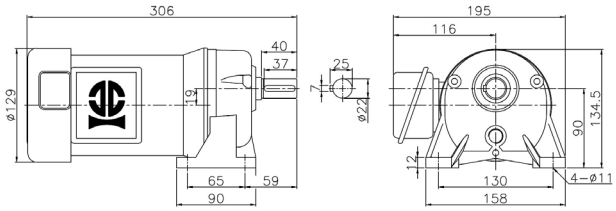
8.3Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30

圖 SB11 18	GV-18-200-5S~30S



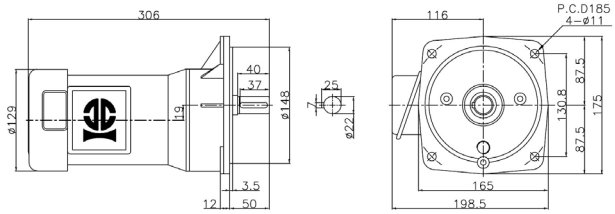
8.3Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30

圖 SB8 22	GH-22-200-5S~100S



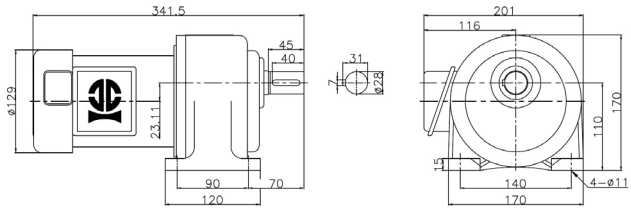
9.2Kg / 0.22L	RATIO	5,10,12.5,15,20,25,30,40,50,60,75,90,100

圖 SB12 22	GV-22-200-5S~100S



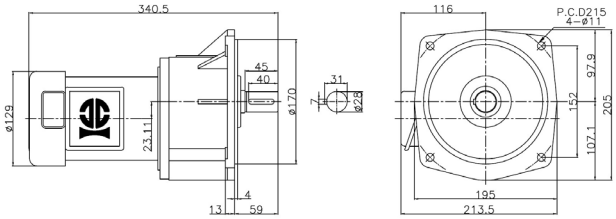
10.4Kg / 0.22L	RATIO	5,10,12.5,15,20,25,30,40,50,60,75,90,100

圖 SB9 28	GH-28-200-100S~200S



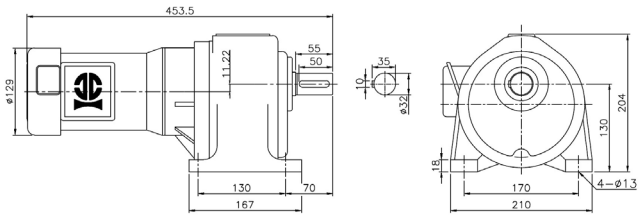
11.6Kg / 0.53L	RATIO	100,120,150,180,200

圖 SB13 28	GV-28-200-100S~200S



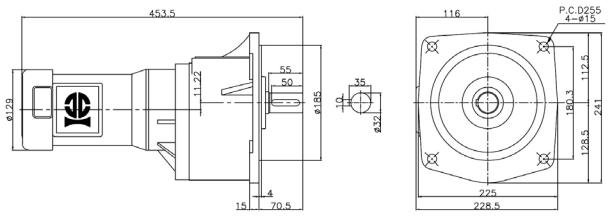
12.4Kg / 0.53L	RATIO	100,120,150,180,200

圖 SB10 32	GH-32-200-250S~1800S



27.1Kg / 0.02L	RATIO	250,300,···,1500,1800

圖 SB14 32	GV-32-200-250S~1800S



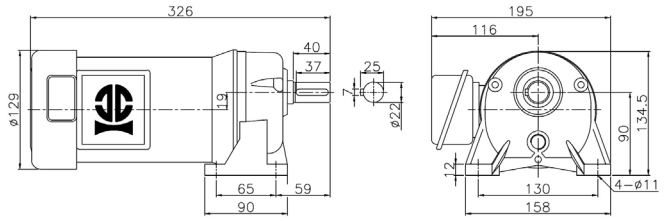
27.0Kg / 0.02L	RATIO	250,300,···,1500,1800

小型齒輪減速(馬達) Small Gear Reducer (Motor)

0.4KW(1/2HP)	
臥式 Horizontal Type	
Type: GH...SB	

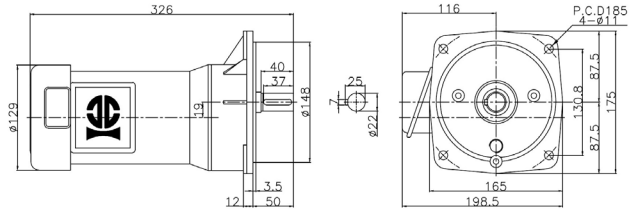
0.4KW(1/2HP)	
立式 Vertical Type	
Type: GV...SB	

圖 SB15 22	GH-22-400-5S~25S



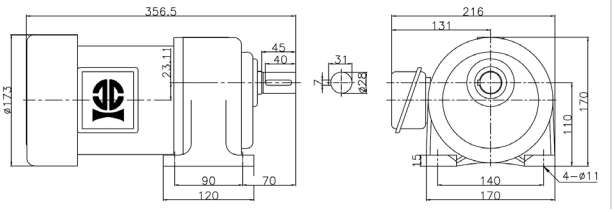
11.5Kg / 0.22L	RATIO	5,10,12.5,15,20,25

圖 SB19 22	GV-22-400-5S~25S



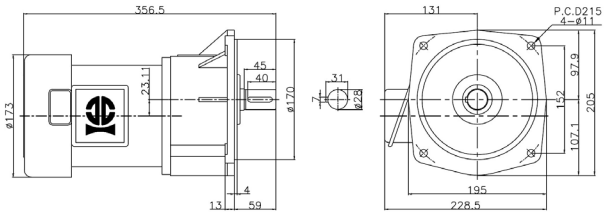
11.7Kg / 0.22L	RATIO	5,10,12.5,15,20,25

圖 SB16 28	GH-28-400-5S~90S



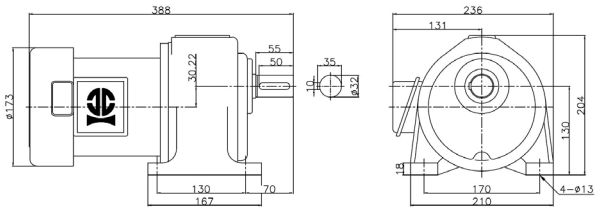
15.3Kg / 0.53L	RATIO	5,10,12.5,15,20,25,30,40,50,60,75,90

圖 SB20 28	GV-28-400-5S~90S



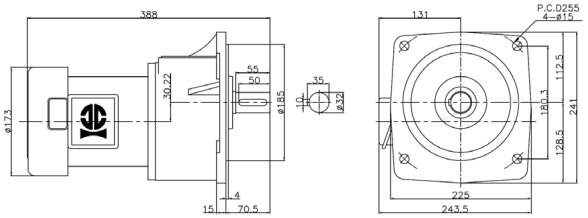
15.6Kg / 0.53L	RATIO	5,10,12.5,15,20,25,30,40,50,60,75,90

圖 SB17 32	GH-32-400-100S~200S



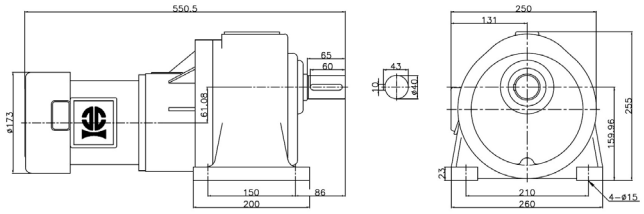
27.6Kg / 0.80L	RATIO	100,120,150,180,200

圖 SB21 32	GV-32-400-100S~200S



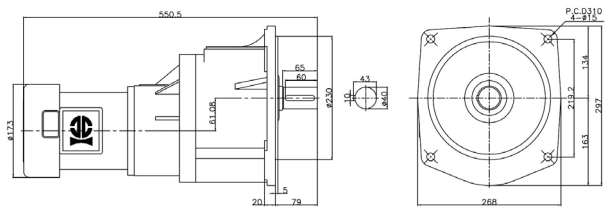
27.5Kg / 0.80L	RATIO	100,120,150,180,200

圖 SB18 40	GH-40-400-250S~1800S



50.5Kg / 2.00L	RATIO	250,300,···,1500,1800

圖 SB22 40	GV-40-400-250S~1800S

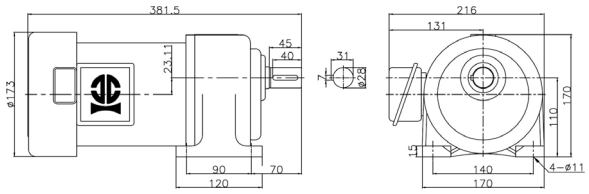


50.9Kg / 2.00L	RATIO	250,300,···,1500,1800

0.75KW(1HP)	
臥式 Horizontal Type	
Type: GH...SB	

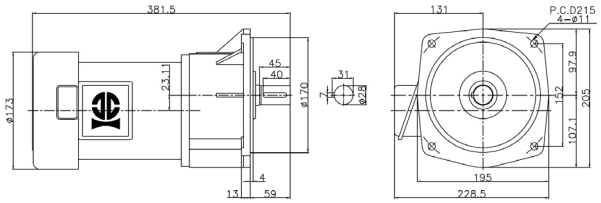
0.75KW(1HP)	
立式 Vertical Type	
Type: GV...SB	

圖 SB23 28	GH-28-750-5S~25S



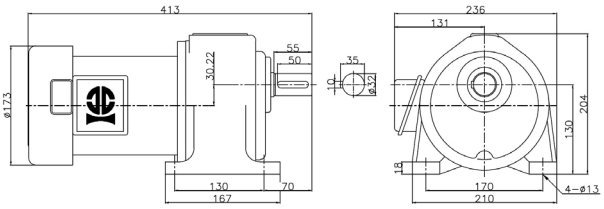
17.2Kg / 0.53L	RATIO	5,10,12.5,15,20,25

圖 SB27 28	GV-28-750-5S~25S



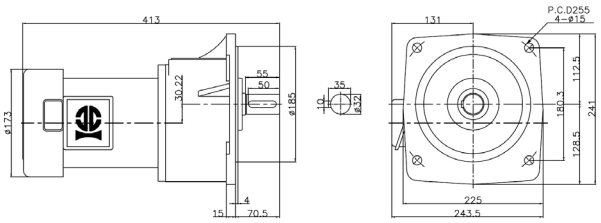
18.0Kg / 0.53L	RATIO	5,10,12.5,15,20,25

圖 SB24 32	GH-32-750-30S~120S



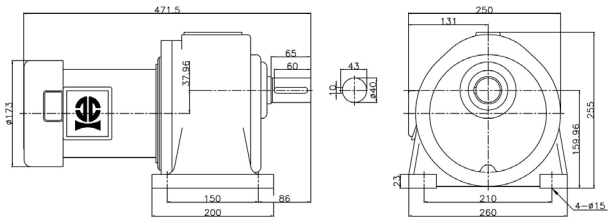
30.4Kg / 0.80L	RATIO	30,40,50,60,75,90,100,120

圖 SB28 32	GV-32-750-30S~120S



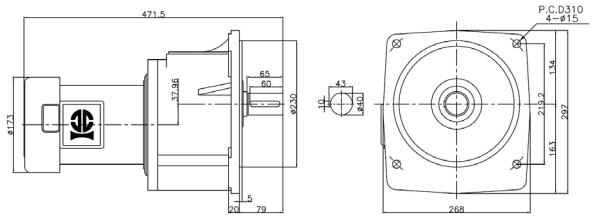
29.8Kg / 0.80L	RATIO	30,40,50,60,75,90,100,120

圖 SB25 40	GH-40-750-40S~200S



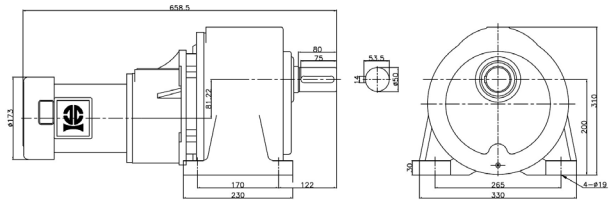
47.8Kg / 2.00L	RATIO	40,50,60,75,90,100,120,150,180,200

圖 SB29 40	GV-40-750-40S~200S



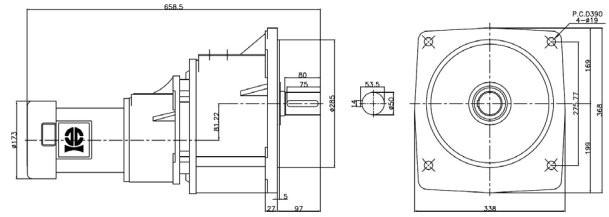
48.2Kg / 2.00L	RATIO	40,50,60,75,90,100,120,150,180,200

圖 SB26 50	GH-50-750-250S~1800S



98.2Kg / 4.00L	RATIO	250,300,⋯,1500,1800

圖 SB30 50	GV-50-750-250S~1800S

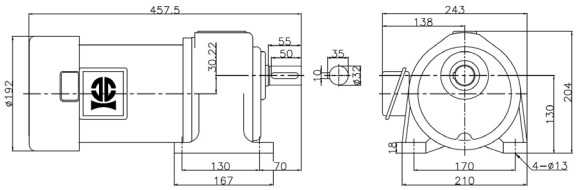


97.8Kg / 4.00L	RATIO	250,300,⋯,1500,1800

小型齒輪減速(馬達) Small Gear Reducer (Motor)

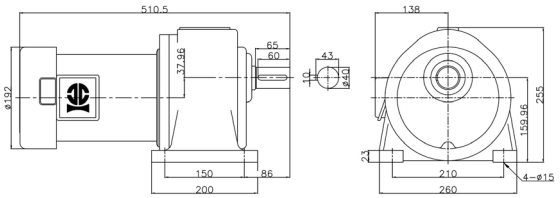
1.5KW(2HP)	
臥式 Horizontal Type	
Type: GH...SB	

圖 SB31	GH-32-1500-5S~30S
32	



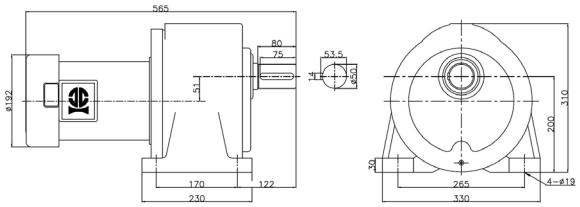
37.2Kg / 0.80L	RATIO	5,10,12.5,15,20,25,30

圖 SB32	GH-40-1500-40S~100S
40	



55.8Kg / 2.00L	RATIO	40,50,60,75,90,100

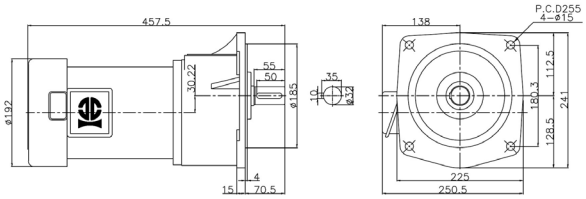
圖 SB33	GH-50-1500-120S~200S
50	



87.7Kg / 3.20L	RATIO	120,150,180,200

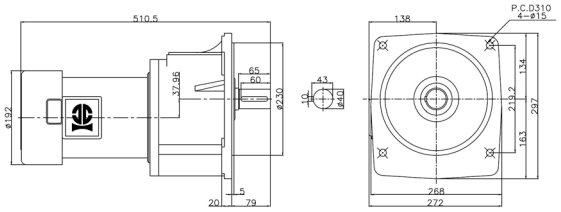
1.5KW(2HP)	
立式 Vertical Type	
Type: GV...SB	

圖 SB34	GV-32-1500-5S~30S
32	



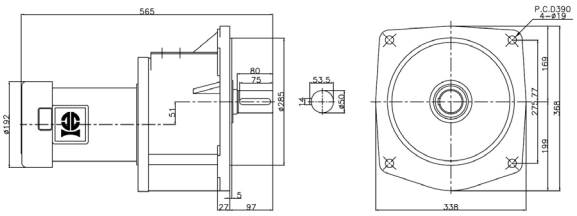
37.8Kg / 0.80L	RATIO	5,10,12.5,15,20,25,30

圖 SB35	GV-40-1500-40S~100S
40	



57.4Kg / 2.00L	RATIO	40,50,60,75,90,100

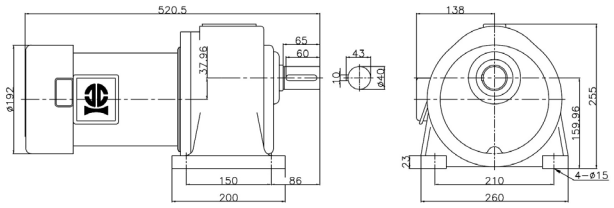
圖 SB36	GV-50-1500-120S~200S
50	



87.3Kg / 3.20L	RATIO	120,150,180,200

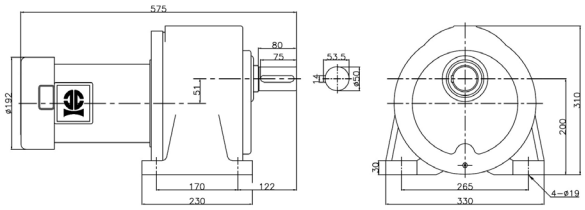
2.2KW(3HP)	
臥式 Horizontal Type	
Type: GH...SB	

圖 SB37	GH-40-2200-5S~40S
40	



58.9Kg / 2.00L	RATIO	5,10,12.5,15,20,25,30,40

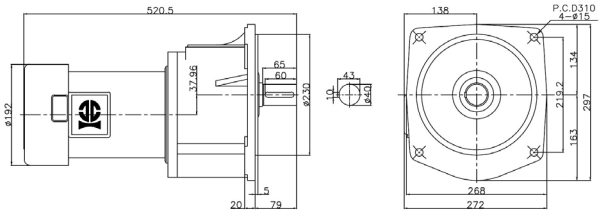
圖 SB38	GH-50-2200-50S~100S
50	



90.2Kg / 3.20L	RATIO	50,60,75,90,100

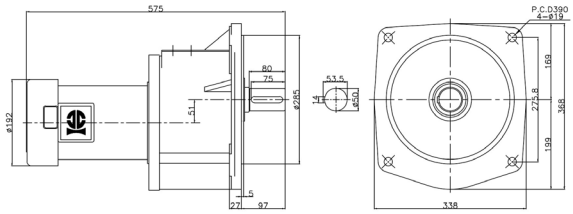
2.2KW(3HP)	
立式 Vertical Type	
Type: GV...SB	

圖 SB39	GV-40-2200-5S~40S
40	



58.9Kg / 2.00L	RATIO	5,10,12.5,15,20,25,30,40

圖 SB40	GV-50-2200-50S~100S
50	

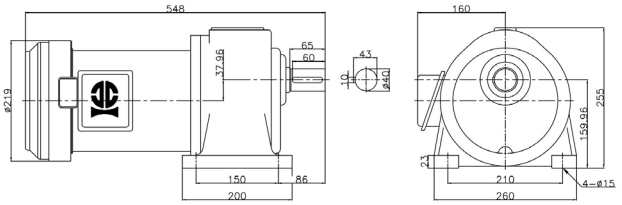


90.2Kg / 3.20L	RATIO	50,60,75,90,100

小型齒輪減速(馬達) Small Gear Reducer (Motor)

3.7KW(5HP)	
臥式 Horizontal Type	
Type: GH...SB	

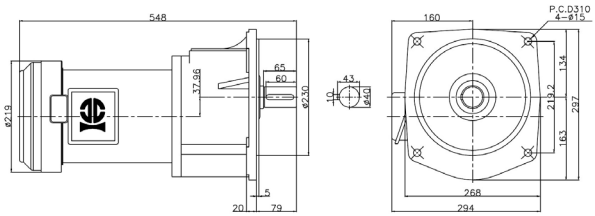
圖 SB41	GH-40-3700-5S~20S
40	



60.9Kg / 2.00L	RATIO	5,10,12.5,15,20

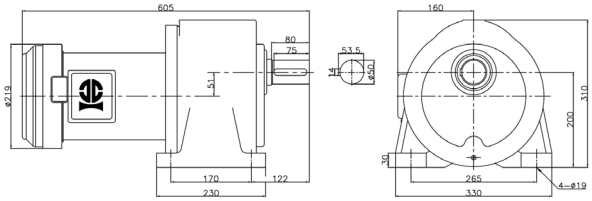
3.7KW(5HP)	
立式 Vertical Type	
Type: GV...SB	

圖 SB43	GV-40-3700-5S~20S
40	



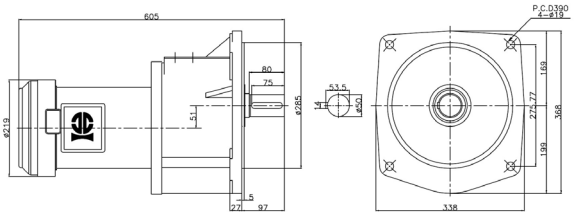
60.9Kg / 2.00L	RATIO	5,10,12.5,15,20

圖 SB42	GH-50-3700-5S~60S
50	



97.5Kg / 3.20L	RATIO	5,10,12.5,15,20,25,30,40,50,60

圖 SB44	GV-50-3700-5S~60S
50	



97.5Kg / 3.20L	RATIO	5,10,12.5,15,20,25,30,40,50,60

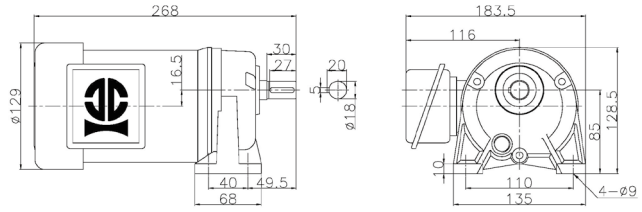
臥式 / 立式單相減速馬達 (附剎車) GH…A(AB)/GV…A(AB)

Horizontal/Vertical Type With Aluminum / Single-Phase (Brake) Motor

0.1KW(1/8HP)	
臥式 Horizontal Type	
Type: GH...A(AB)	

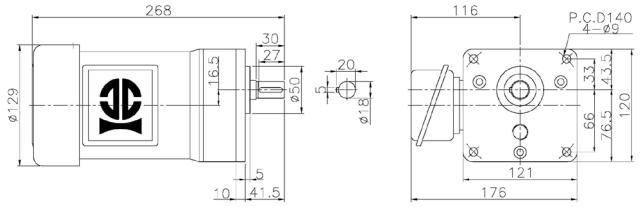
0.1KW(1/8HP)	
立式 Vertical Type	
Type: GV...A(AB)	

圖 A1	GH-18-100-5A~40A
18	



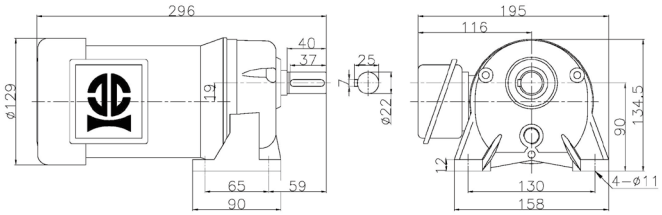
6.7Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30,40

圖 A4	GV-18-100-5A~40A
18	



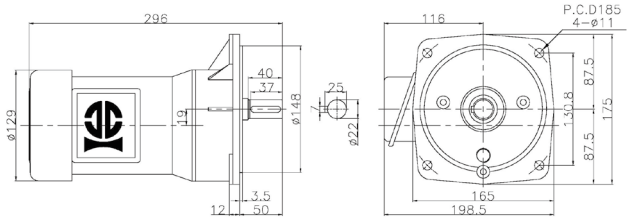
6.7Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30,40

圖 A2	GH-22-100-50A~200A
22	



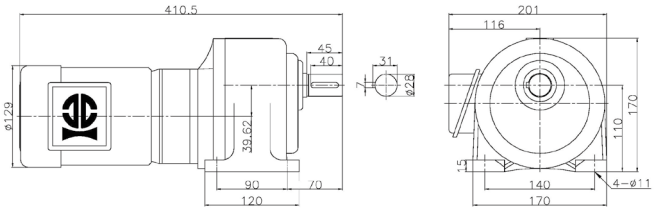
7.6Kg / 0.22L	RATIO	50,60,75,90,100,120,150,180,200

圖 A5	GV-22-100-50A~200A
22	



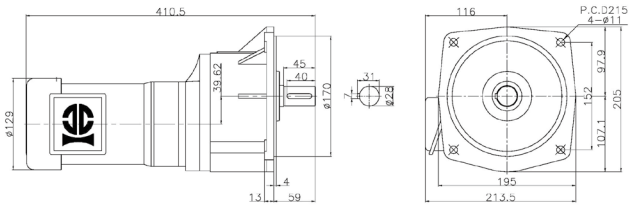
8.0Kg / 0.22L	RATIO	50,60,75,90,100,120,150,180,200

圖 A3	GH-28-100-250A~1800A
28	



11.6Kg / 0.53L	RATIO	250,300,…,1500,1800

圖 A6	GV-28-100-250A~1800A
28	



12.4Kg / 0.53L	RATIO	250,300,…,1500,1800

小型齒輪減速(馬達) Small Gear Reducer (Motor)

0.2KW(1/4HP)	
臥式 Horizontal Type	
Type: GH...A(AB)	

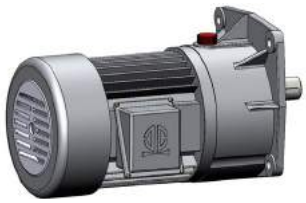
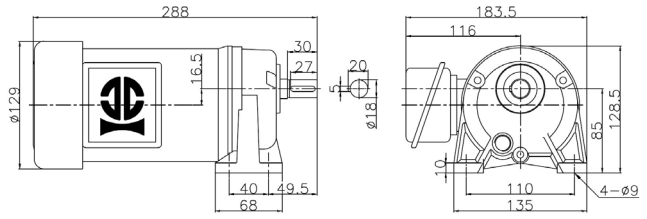
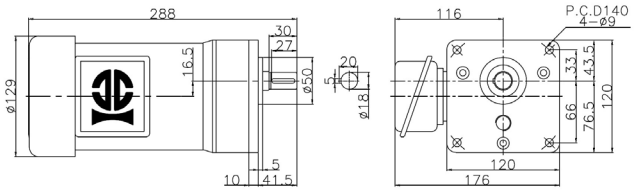
0.2KW(1/4HP)	
立式 Vertical Type	
Type: GV...A(AB)	

圖 A7	GH-18-200-5A~30A
18	



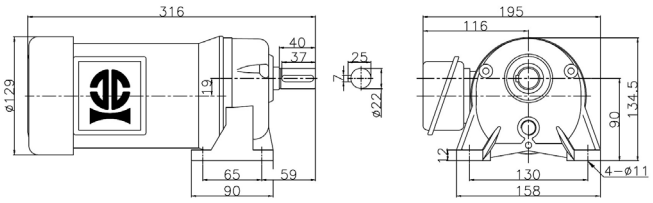
8.3Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30

圖 A11	GV-18-200-5A~30A
18	



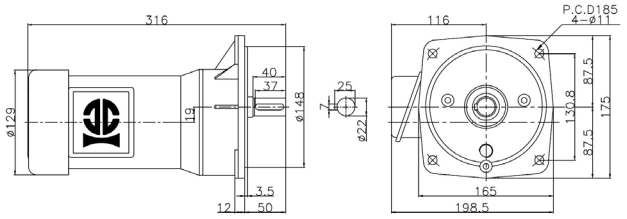
8.3Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30

圖 A8	GH-22-200-5A~100A
22	



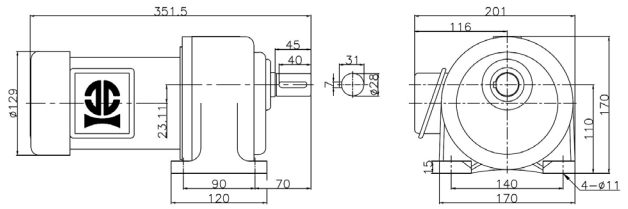
9.2Kg / 0.22L	RATIO	5,10,12.5,15,20,25,30,40,50,60,75,90,100

圖 A12	GV-22-200-5A~100A
22	



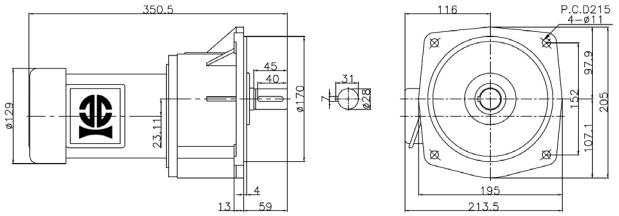
10.4Kg / 0.22L	RATIO	5,10,12.5,15,20,25,30,40,50,60,75,90,100

圖 A9	GH-28-200-100A~200A
28	



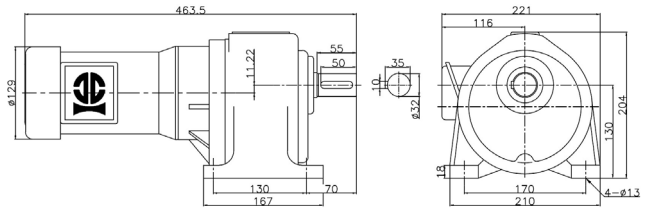
11.6Kg / 0.53L	RATIO	100,120,150,180,200

圖 A13	GV-28-200-100A~200A
28	



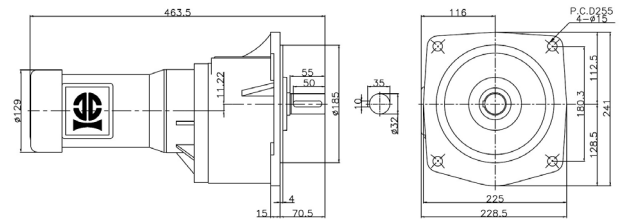
12.4Kg / 0.53L	RATIO	100,120,150,180,200

圖 A10	GH-32-200-250A~1800A
32	



27.1Kg / 1.02L	RATIO	250,300,⋯,1500,1800

圖 A14	GV-32-200-250A~1800A
32	

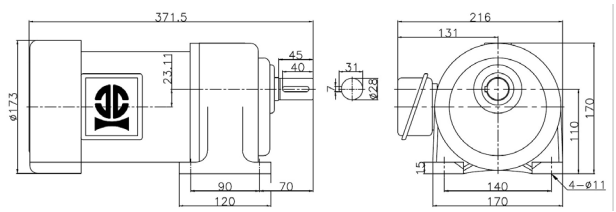


27Kg / 1.02L	RATIO	250,300,⋯,1500,1800

0.4KW(1/2HP)	
臥式 Horizontal Type	
Type: GH...A(AB)	

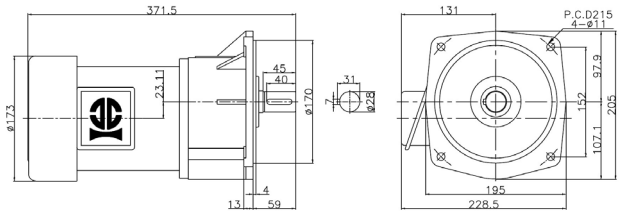
0.4KW(1/2HP)	
立式 Vertical Type	
Type: GV...A(AB)	

圖 A15	GH-28-400-5A~90A
28	



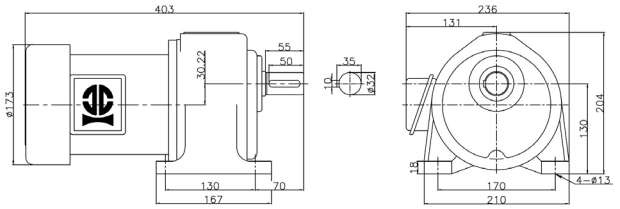
15.3Kg / 0.53L	RATIO	5,10,12.5,15,20,25,30,40,50,60,75,90

圖 A18	GV-28-400-5A~90A
28	



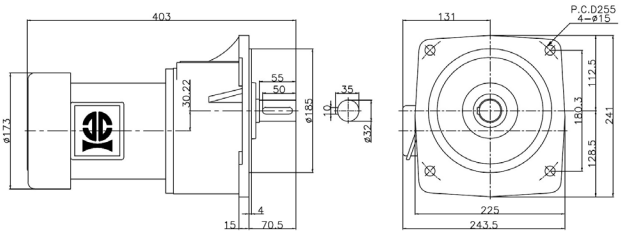
15.6Kg / 0.53L	RATIO	5,10,12.5,15,20,25,30

圖 A16	GH-32-400-100A~200A
32	



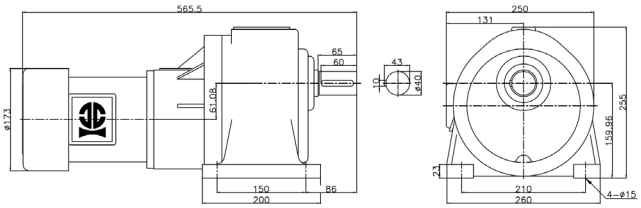
27.6Kg / 0.80L	RATIO	100,120,150,180,200

圖 A19	GV-32-400-100A~200A
32	



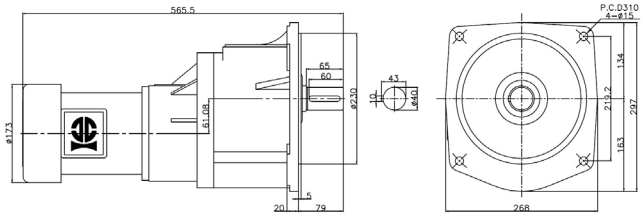
27.5Kg / 0.80L	RATIO	100,120,150,180,200

圖 A17	GH-40-400-250A~1800A
40	



50.5Kg / 2.00L	RATIO	250,300,···,1500,1800

圖 A20	GV-40-400-250A~1800A
40	



50.9Kg / 2.00L	RATIO	250,300,···,1500,1800

小型齒輪減速(馬達) Small Gear Reducer (Motor)

0.75KW(1HP)	
臥式 Horizontal Type	
Type: GH...A(AB)	

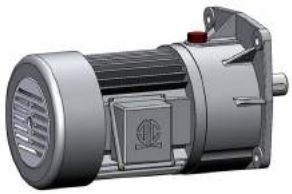
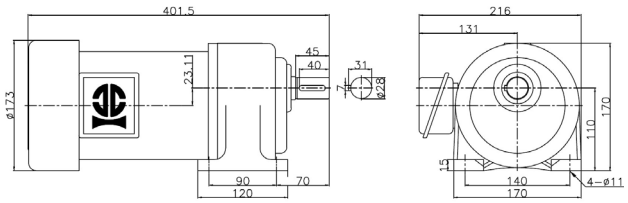
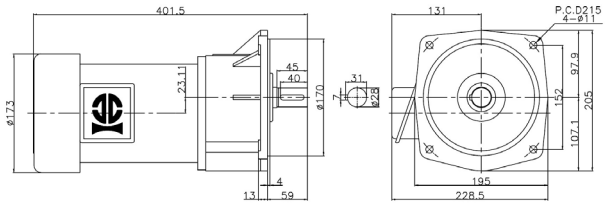
0.75KW(1HP)	
立式 Vertical Type	
Type: GV...A(AB)	

圖 A21	GH-28-750-5A~25A
28	



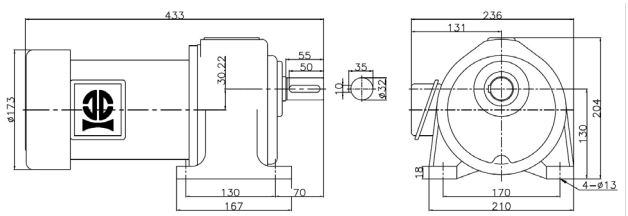
17.2Kg / 0.53L	RATIO	5,10,12.5,15,20,25

圖 A25	GV-28-750-5A~25A
28	



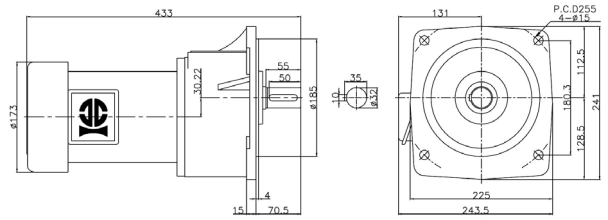
18.0Kg / 0.53L	RATIO	5,10,12.5,15,20,25

圖 A22	GH-32-750-30A~120A
32	



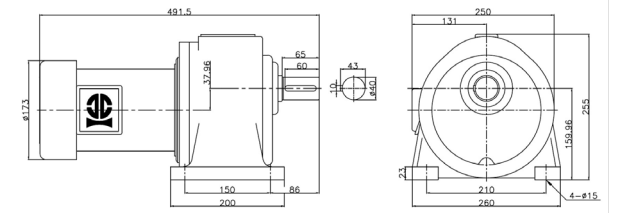
30.4Kg / 0.80L	RATIO	30,40,50,60,75,90,100,120

圖 A26	GV-32-750-30A~120A
32	



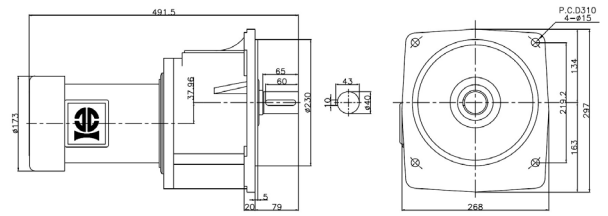
29.8Kg / 0.80L	RATIO	30,40,50,60,75,90,100,120

圖 A23	GH-40-750-40A~200A
40	



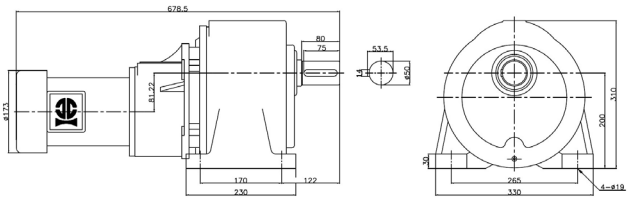
47.8Kg / 2.00L	RATIO	40,50,60,75,90,100,120,150,180,200

圖 A27	GV-40-750-40A~200A
40	



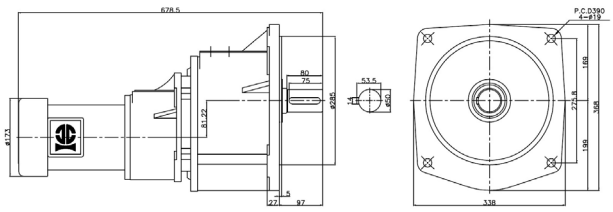
48.2Kg / 2.00L	RATIO	40,50,60,75,90,100,120,150,180,200

圖 A24	GH-50-750-250A~1800A
50	



98.2Kg / 4.00L	RATIO	250,300,···,1500,1800

圖 A28	GV-50-750-250A~1800A
50	

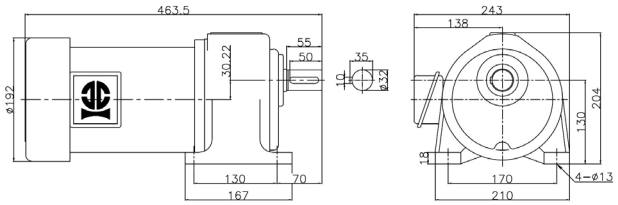


97.8Kg / 4.00L	RATIO	250,300,···,1500,1800

1.5KW(2HP)	
臥式 Horizontal Type	
Type: GH...A(AB)	

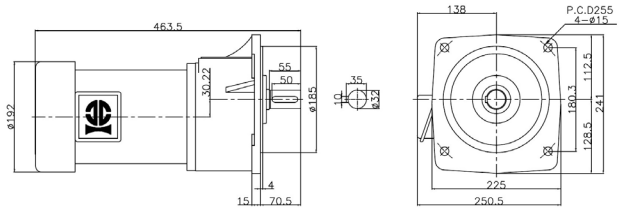
1.5KW(2HP)	
立式 Vertical Type	
Type: GV...A(AB)	

圖 A29	GH-32-1500-5A~30A
32	



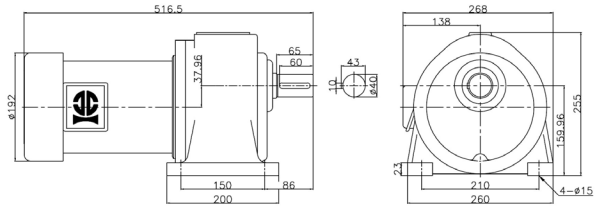
37.2Kg / 0.80L	RATIO	5,10,12.5,15,20,25,30

圖 A32	GV-32-1500-5A~30A
32	



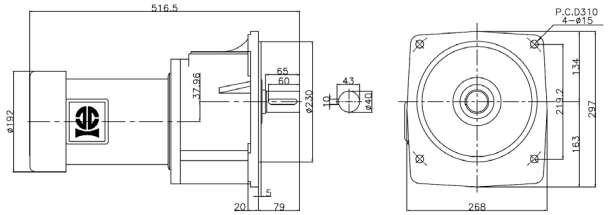
37.8Kg / 0.80L	RATIO	5,10,12.5,15,20,25,30

圖 A30	GH-40-1500-40A~100A
40	



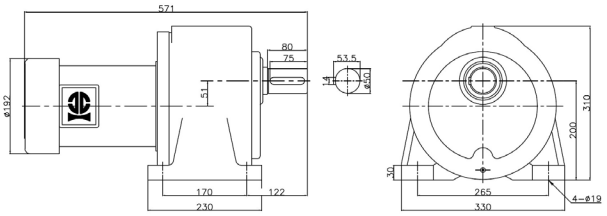
55.8Kg / 2.00L	RATIO	40,50,60,75,90,100

圖 A33	GV-40-1500-40A~100A
40	



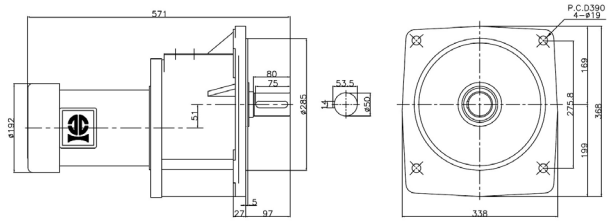
57.4Kg / 2.00L	RATIO	40,50,60,75,90,100

圖 A31	GH-50-1500-120A~200A
50	



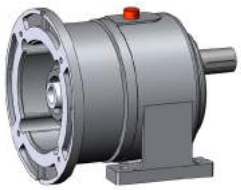
87.7Kg / 3.20L	RATIO	120,150,180,200

圖 A34	GV-50-1500-120A~200A
50	



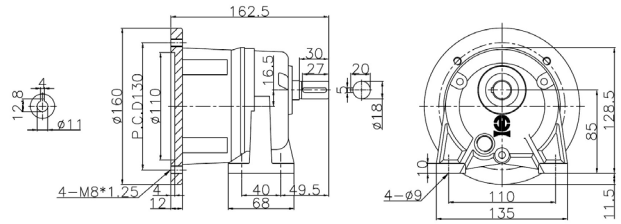
87.3Kg / 3.20L	RATIO	120,150,180,200

臥式 / 立式直結法蘭齒輪減速機 GHM/GVM
Input Flange Type With Horizontal/Vertical Mount

0.1KW(1/8HP)	
臥式 Horizontal Type	
Type: GHM	

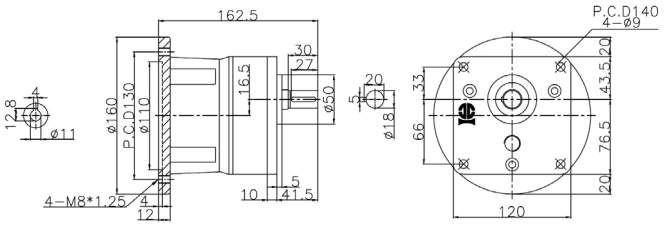
0.1KW(1/8HP)	
立式 Vertical Type	
Type: GVM	

圖 M1	GHM-18-100-5S~40S
18	



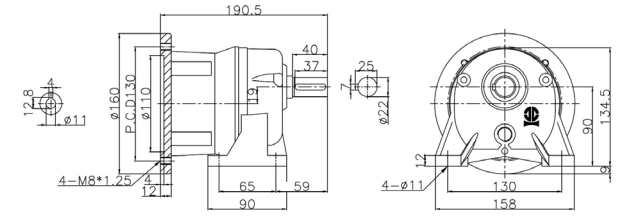
2.7Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30,40

圖 M4	GVM-18-100-5S~40S
18	



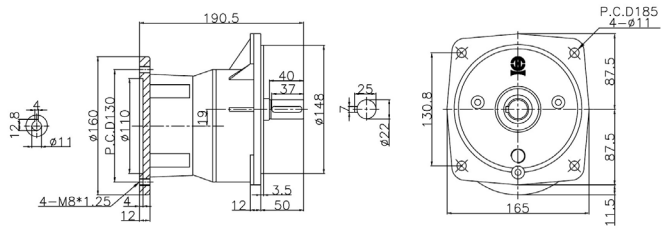
2.0Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30,40

圖 M2	GHM-22-100-50S~200S
22	



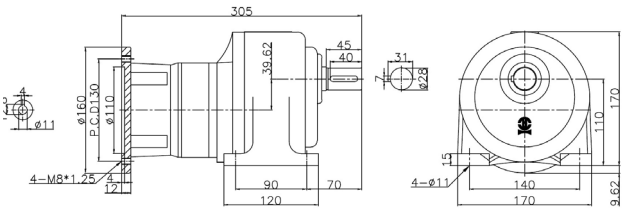
3.6Kg / 0.22L	RATIO	50,60,75,90,100,120,150,180,200

圖 M5	GVM-22-100-50S~200S
22	



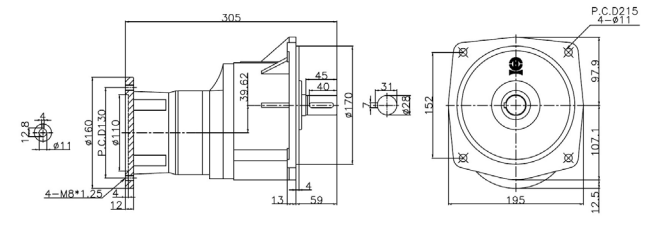
3.3Kg / 0.22L	RATIO	50,60,75,90,100,120,150,180,200

圖 M3	GHM-28-100-250S~1800S
28	



7.6Kg / 0.53L	RATIO	250,300,⋯,1500,1800

圖 M6	GVM-28-100-250S~1800S
28	

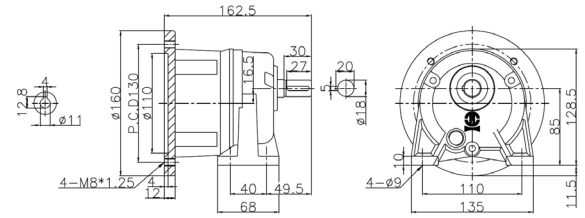


7.8Kg / 0.53L	RATIO	250,300,⋯,1500,1800

0.2KW(1/4HP)	
臥式 Horizontal Type	
Type: GHM	

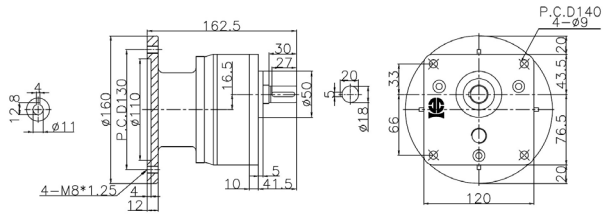
0.2KW(1/4HP)	
立式 Vertical Type	
Type: GVM	

圖 M7 18	GHM-18-200-5S~30S



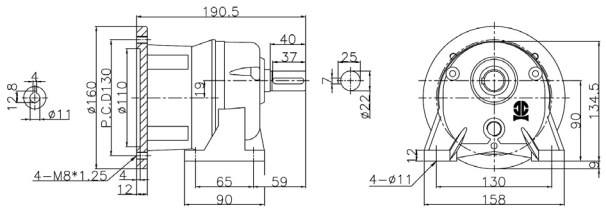
2.7Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30

圖 A11 18	GVM-18-200-5S~30S



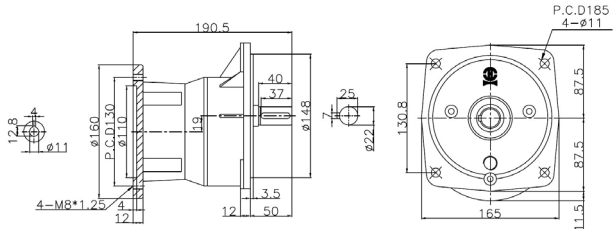
2.7Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30

圖 M8 22	GHM-22-200-5S~100S



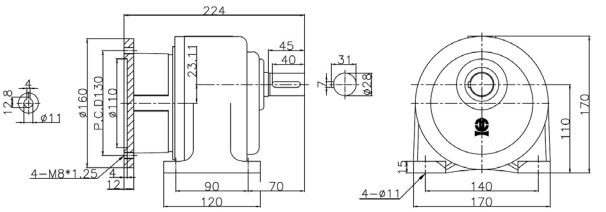
3.6Kg / 0.22L	RATIO	5,10,12.5,15,20,25,30,40,50,60,75,90,100

圖 M12 22	GVM-22-200-5S~100S



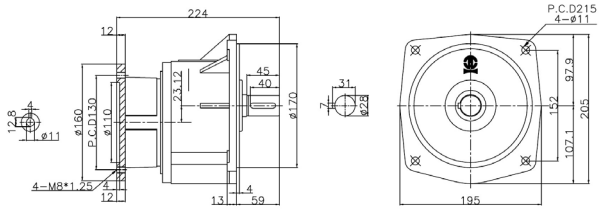
4.0Kg / 0.22L	RATIO	5,10,12.5,15,20,25,30,40,50,60,75,90,100

圖 M9 28	GHM-28-200-100S~200S



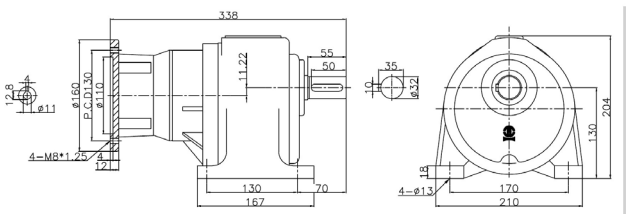
6.1Kg / 0.53L	RATIO	100,120,150,180,200

圖 M13 28	GVM-28-200-100S~200S



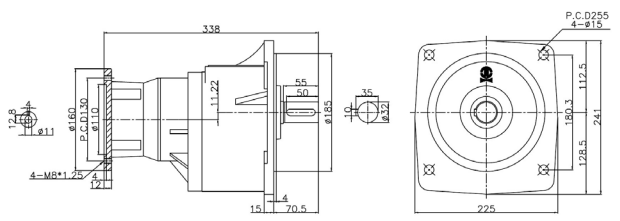
6.9Kg / 0.53L	RATIO	100,120,150,180,200

圖 M10 32	GHM-32-200-250S~1800S



21.5Kg / 1.02L	RATIO	250,300,⋯,1500,1800

圖 M14 32	GVM-32-200-250S~1800S



21.4Kg / 1.02L	RATIO	250,300,⋯,1500,1800

小型齒輪減速(馬達) Small Gear Reducer (Motor)

0.4KW(1/2HP)	
臥式 Horizontal Type	
Type: GHM	

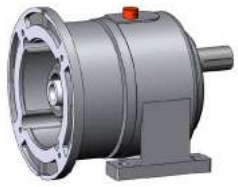
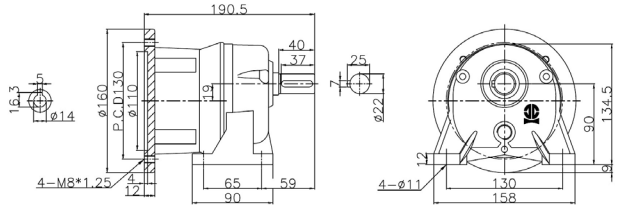
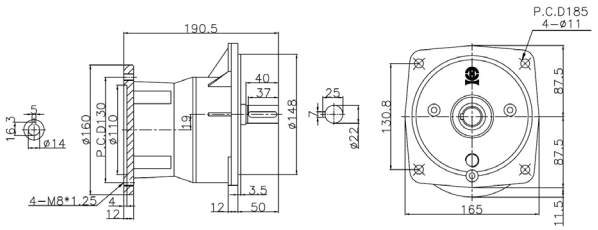
0.4KW(1/2HP)	
立式 Vertical Type	
Type: GVM	

圖 M15	GHM-22-400-5S~25S
22	



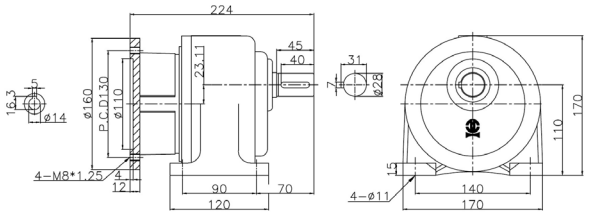
3.5Kg / 0.22L	RATIO	5,10,12.5,15,20,25

圖 M19	GVM-22-400-5S~25S
22	



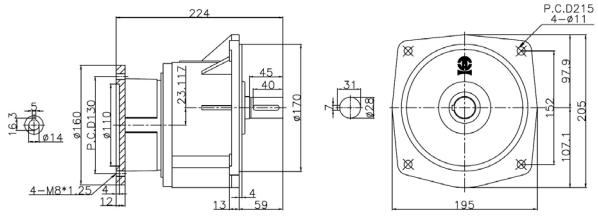
3.9Kg / 0.22L	RATIO	5,10,12.5,15,20,25

圖 M16	GHM-28-400-5S~90S
28	



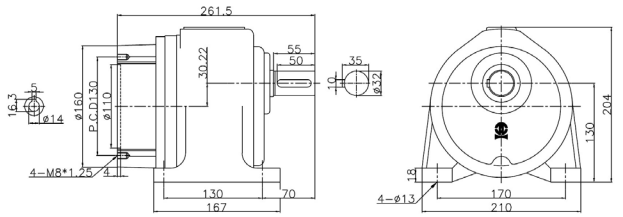
6.1Kg / 0.53L	RATIO	5,10,12.5,15,20,25,30,40,50,60,75,90

圖 M20	GVM-28-400-5S~90S
28	



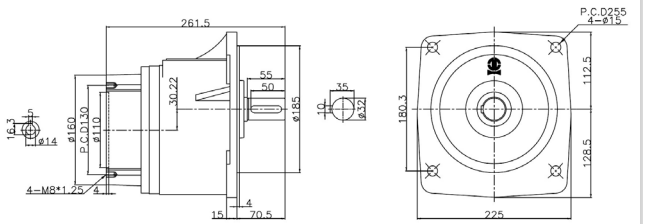
6.9Kg / 0.53L	RATIO	5,10,12.5,15,20,25,30,40,50,60,75,90

圖 M17	GHM-32-400-100S~200S
32	



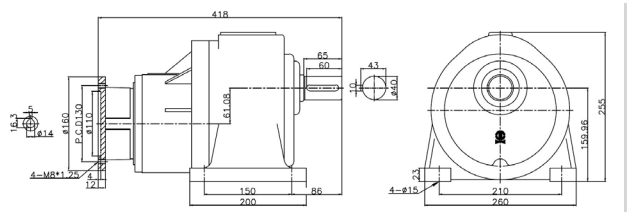
22.2Kg / 0.80L	RATIO	100,120,150,180,200

圖 M21	GVM-32-400-100S~200S
32	



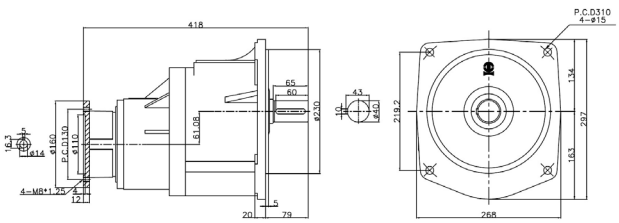
22.1Kg / 0.80L	RATIO	100,120,150,180,200

圖 M18	GHM-40-400-250S~1800S
40	

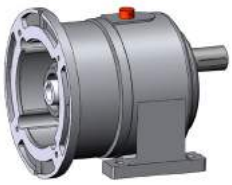


41.3Kg / 2.00L	RATIO	250,300,⋯,1500,1800

圖 M22	GVM-40-400-250S~1800S
40	

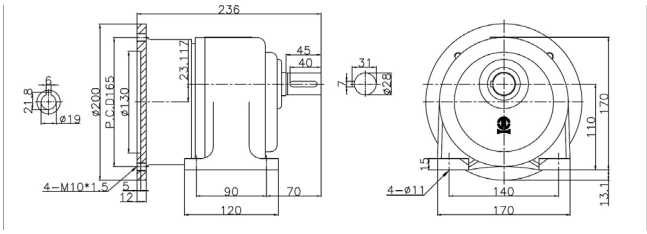


41.7Kg / 2.00L	RATIO	250,300,⋯,1500,1800

0.75KW(1HP)	
臥式 Horizontal Type	
Type: GHM	

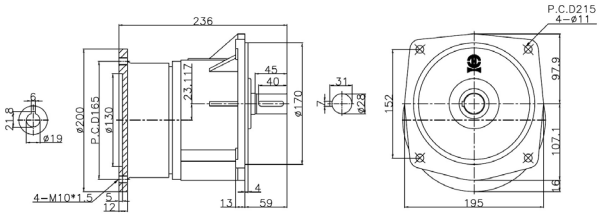
0.75KW(1HP)	
立式 Vertical Type	
Type: GVM	

圖 M23	GHM-28-750-5S~25S
28	



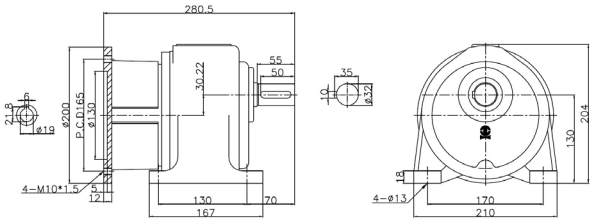
6.9Kg / 0.53L	RATIO	5,10,12.5,15,20,25

圖 M27	GVM-28-750-5S~25S
28	



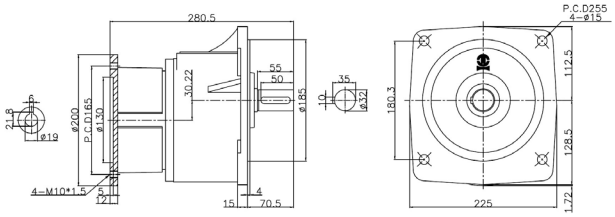
7.7Kg / 0.53L	RATIO	5,10,12.5,15,20,25

圖 M24	GHM-32-750-30S~120S
32	



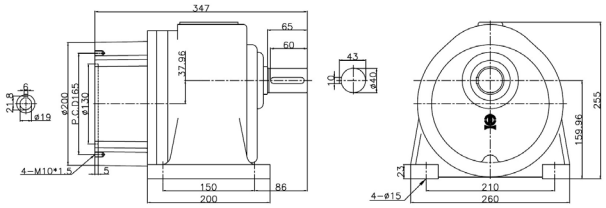
23.7Kg / 0.80L	RATIO	30,40,50,60,75,90,100,120

圖 M28	GVM-32-750-30S~120S
32	



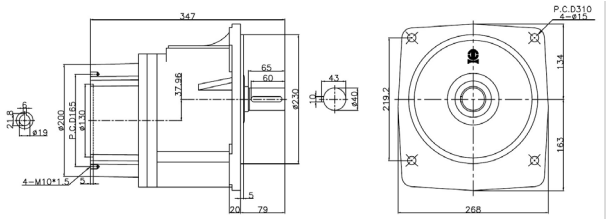
23.6Kg / 0.80L	RATIO	30,40,50,60,75,90,100,120

圖 M25	GHM-40-750-40S~200S
40	



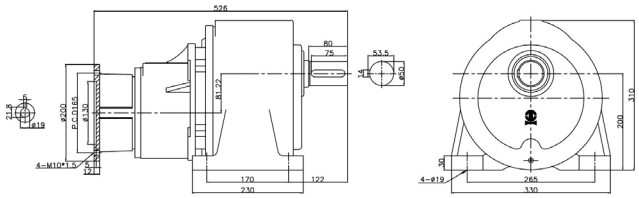
44.7Kg / 2.00L	RATIO	40,50,60,75,90,100,120,150,180,200

圖 M29	GVM-40-750-40S~200S
40	



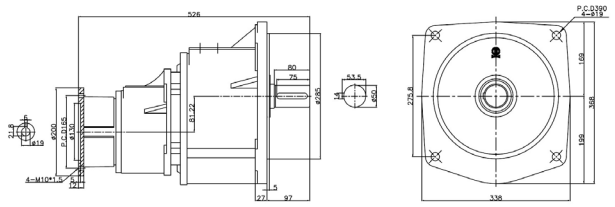
45.1Kg / 2.00L	RATIO	40,50,60,75,90,100,120,150,180,200

圖 M26	GHM-50-750-250S~1800S
50	



91.5Kg / 4.00L	RATIO	250,300,⋯,1500,1800

圖 M30	GVM-50-750-250S~1800S
50	



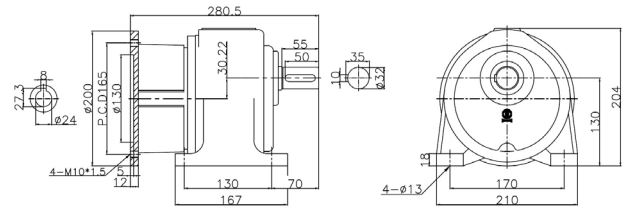
91.1Kg / 4.00L	RATIO	250,300,⋯,1500,1800

小型齒輪減速(馬達) Small Gear Reducer (Motor)

1.5KW(2HP)	
臥式 Horizontal Type	
Type: GHM	

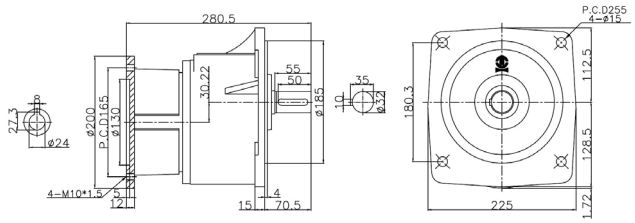
1.5KW(2HP)	
立式 Vertical Type	
Type: GVM	

圖 M31	GHM-32-1500-5S~30S
32	



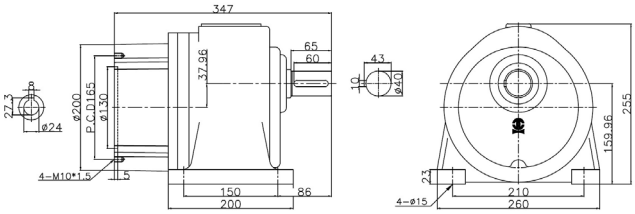
23.6Kg / 0.80L	RATIO	5,10,12.5,15,20,25,30

圖 M34	GVM-32-1500-5S~30S
32	



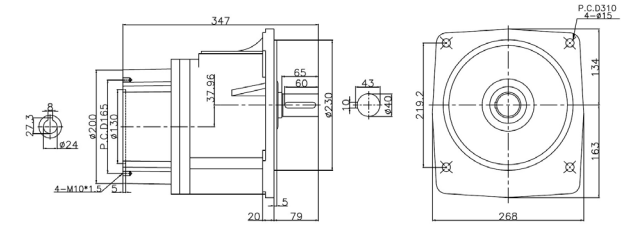
23.5Kg / 0.80L	RATIO	5,10,12.5,15,20,25,30

圖 M32	GHM-40-1500-40S~100S
40	



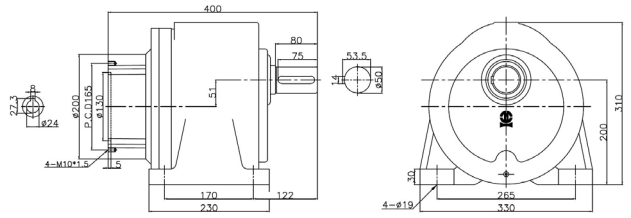
44.6Kg / 2.00L	RATIO	40,50,60,75,90,100

圖 M35	GVM-40-1500-40S~100S
40	



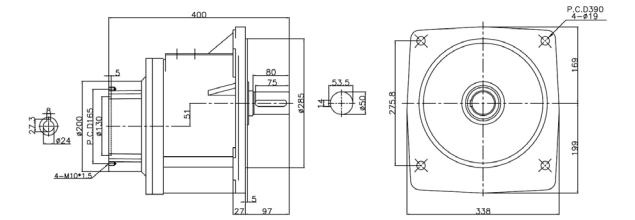
45.0Kg / 2.00L	RATIO	40,50,60,75,90,100

圖 M33	GHM-50-1500-120S~200S
50	



80.0Kg / 3.20L	RATIO	120,150,180,200

圖 M36	GVM-50-1500-120S~200S
50	

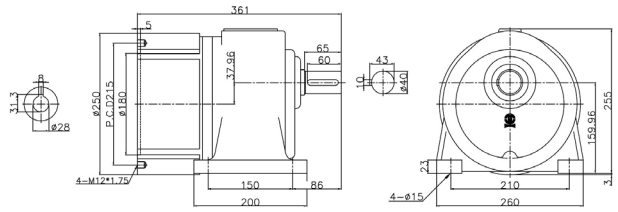


79.6Kg / 3.20L	RATIO	120,150,180,200

2.2KW(3HP)	
臥式 Horizontal Type	
Type: GHM	

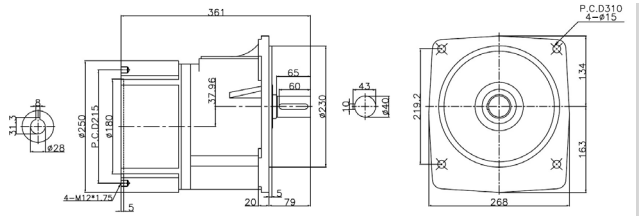
2.2KW(3HP)	
立式 Vertical Type	
Type: GVM	

圖 M37 40	GHM-40-2200-5S~40S



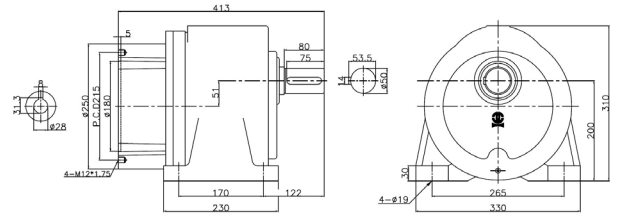
48.7Kg / 2.00L	RATIO	5,10,12.5,15,20,25,30,40

圖 M39 40	GVM-40-2200-5S~40S



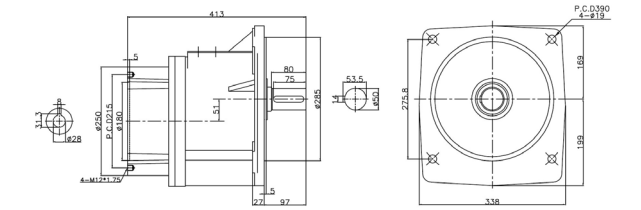
49.1Kg / 2.00L	RATIO	5,10,12.5,15,20,25,30,40

圖 M38 50	GHM-50-2200-50S~100S



85.6Kg / 3.20L	RATIO	50,60,75,90,100

圖 M40 50	GVM-50-2200-50S~100S



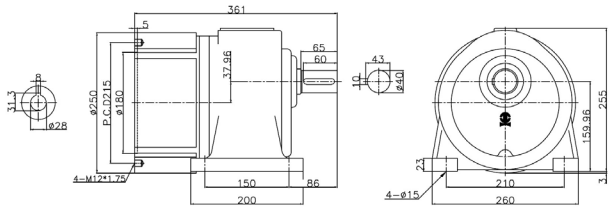
85.2Kg / 3.20L	RATIO	50,60,75,90,100

小型齒輪減速(馬達) Small Gear Reducer (Motor)

3.7KW(5HP)	
臥式 Horizontal Type	
Type: GHM	

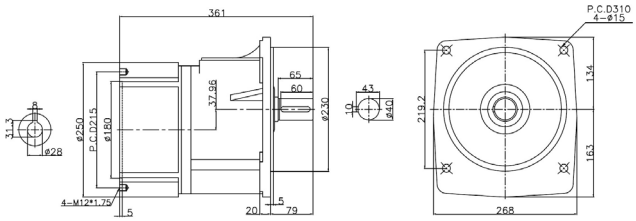
3.7KW(5HP)	
立式 Vertical Type	
Type: GVM	

圖 M41	GHM-40-3700-5S~20S
40	



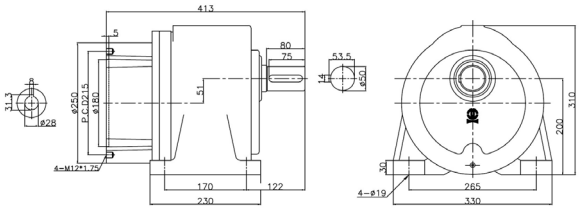
48.7Kg / 2.00L	RATIO	5,10,12.5,15,20

圖 M43	GVM-40-3700-5S~20S
40	



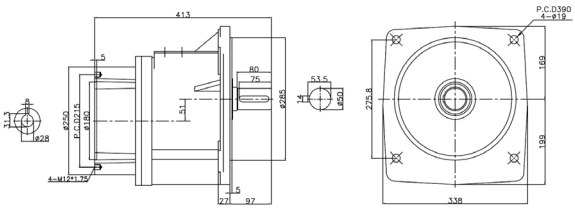
49.1Kg / 2.00L	RATIO	5,10,12.5,15,20

圖 M42	GHM-50-3700-5S~60S
50	



85.6Kg / 3.20L	RATIO	5,10,12.5,15,20,25,30,40,50,60

圖 M44	GVM-50-3700-5S~60S
50	



85.2Kg / 3.20L	RATIO	5,10,12.5,15,20,25,30,40,50,60

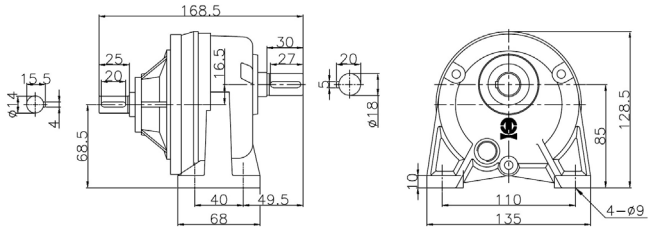
臥式立式 / 雙軸齒輪減速機 GHD/GVD

Double Shaft Type With Horizontal/Vertical l Mount

0.1KW(1/8HP)	
臥式 Horizontal Type	
Type: GHD	

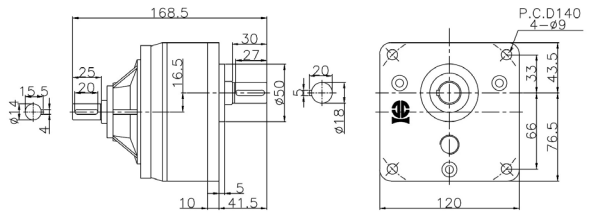
0.1KW(1/8HP)	
立式 Vertical Type	
Type: GVD	

圖 D1	GHD-18-100-5S~40S
18	



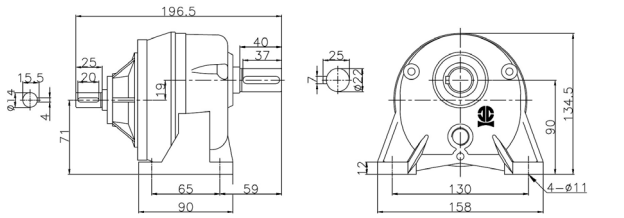
2.0Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30,40

圖 D6	GVD-18-100-5S~40S
18	



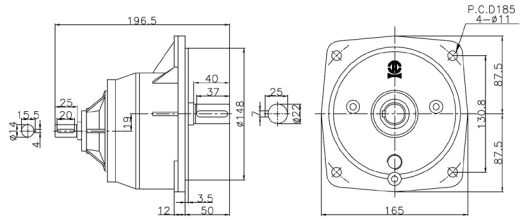
2.0Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30,40

圖 D2	GHD-22-100-50S~200S
22	



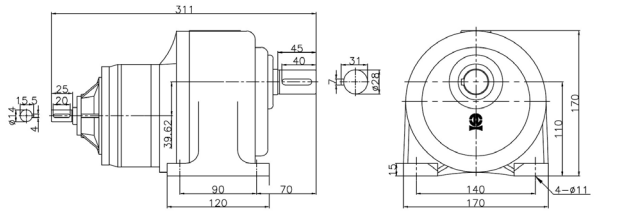
2.9Kg / 0.22L	RATIO	50,60,75,90,100,120,150,180,200

圖 D5	GVD-22-100-50S~200S
22	



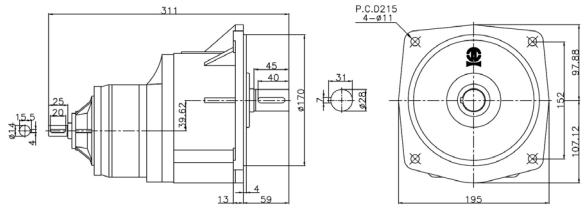
3.3Kg / 0.22L	RATIO	50,60,75,90,100,120,150,180,200

圖 D3	GHD-28-100-250S~1800S
28	



6.9Kg / 0.53L	RATIO	250,300,···,1500,1800

圖 D3	GVD-28-100-250S~1800S
28	



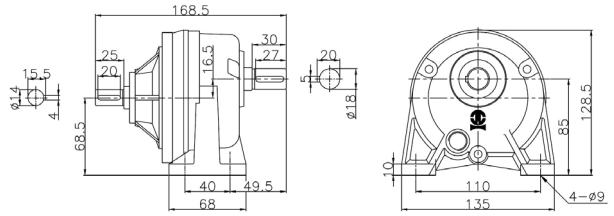
7.8Kg / 0.53L	RATIO	250,300,···,1500,1800

小型齒輪減速(馬達) Small Gear Reducer (Motor)

0.2KW(1/4HP)	
臥式 Horizontal Type	
Type: GHD	

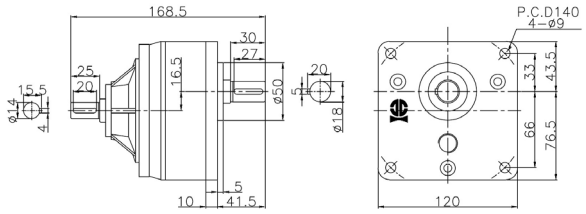
0.2KW(1/4HP)	
立式 Vertical Type	
Type: GVD	

圖 D7	GHD-18-200-5S~30S
18	



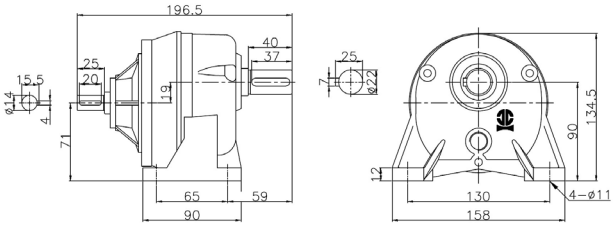
2.0Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30

圖 D11	GVD-18-200-5S~30S
18	



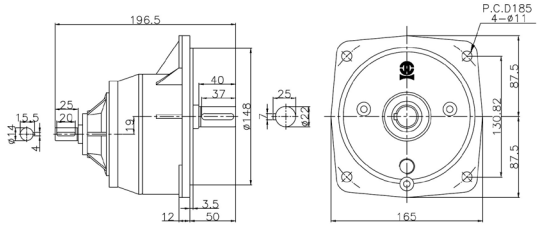
2.0Kg / 0.13L	RATIO	5,10,12.5,15,20,25,30

圖 D8	GHD-22-200-5S~100S
22	



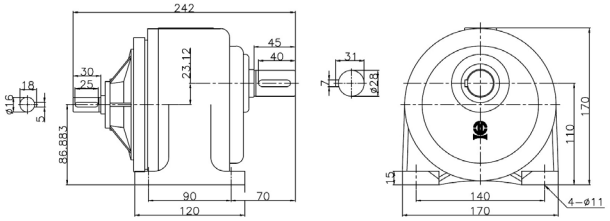
2.9Kg / 0.22L	RATIO	5,10,12.5,15,20,25,30,40,50,60,75,90,100

圖 D12	GVD-22-200-5S~100S
22	



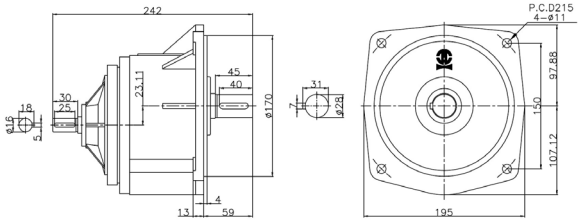
3.3Kg / 0.22L	RATIO	5,10,12.5,15,20,25,30,40,50,60,75,90,100

圖 D9	GHD-28-200-100S~200S
28	



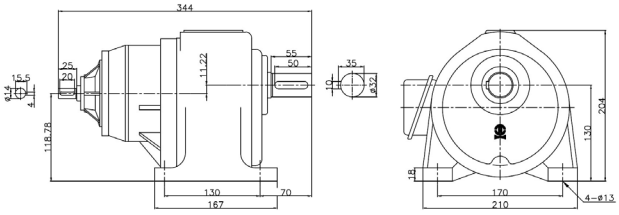
5.6Kg / 0.53L	RATIO	100,120,150,180,200

圖 D13	GVD-28-200-100S~200S
28	



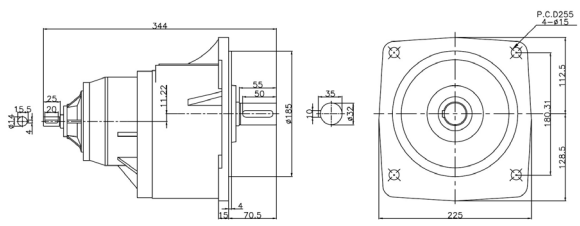
6.4Kg / 0.53L	RATIO	100,120,150,180,200

圖 D10	GHD-32-200-250S~1800S
32	



20.8Kg / 1.02L	RATIO	250,300,⋯,1500,1800

圖 D14	GVD-32-200-250S~1800S
32	

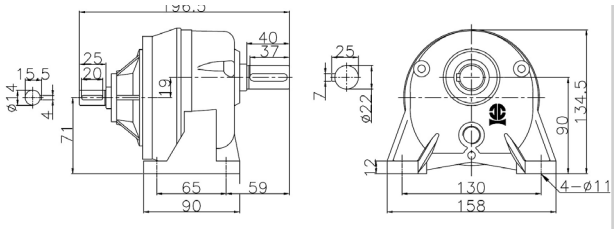


20.7Kg / 1.02L	RATIO	250,300,⋯,1500,1800

0.4KW(1/2HP)	
臥式 Horizontal Type	
Type: GHD	

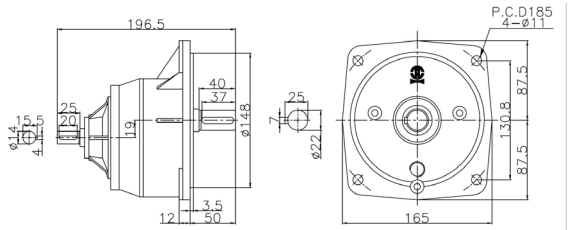
0.4KW(1/2HP)	
立式 Vertical Type	
Type: GVD	

圖 D15 22	GHD-22-400-5S~25S



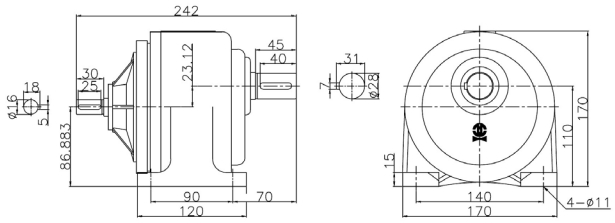
2.9Kg / 0.22L	RATIO	5,10,12.5,15,20,25

圖 D19 22	GVD-22-400-5S~25S



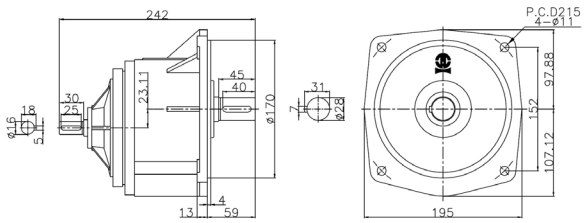
3.3Kg / 0.22L	RATIO	5,10,12.5,15,20,25

圖 D16 28	GHD-28-400-5S~90S



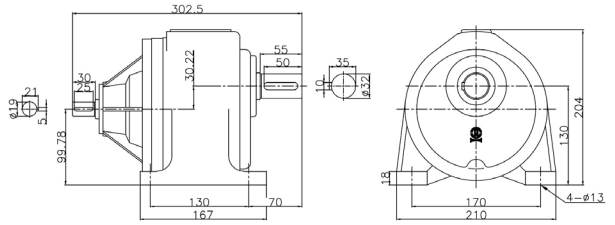
5.6Kg / 0.53L	RATIO	5,10,12.5,15,20,25,30,40,50,60,75,90

圖 D20 28	GVD-28-400-5S~90S



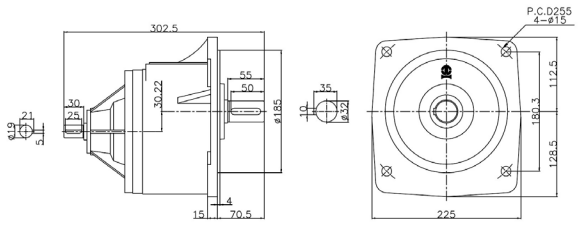
6.4Kg / 0.53L	RATIO	5,10,12.5,15,20,25,30,40,50,60,75,90

圖 D17 32	GHD-32-400-100S~200S



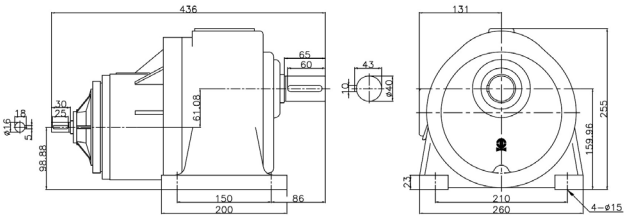
21.1Kg / 0.80L	RATIO	100,120,150,180,200

圖 D21 32	GVD-32-400-100S~200S



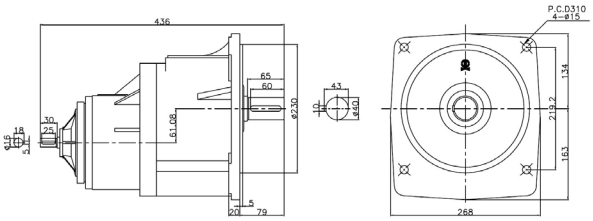
21.2Kg / 0.80L	RATIO	100,120,150,180,200

圖 D18 40	GHD-40-400-250S~1800S



40.8Kg / 2.00L	RATIO	250,300,⋯,1500,1800

圖 D22 40	GVD-40-400-250S~1800S

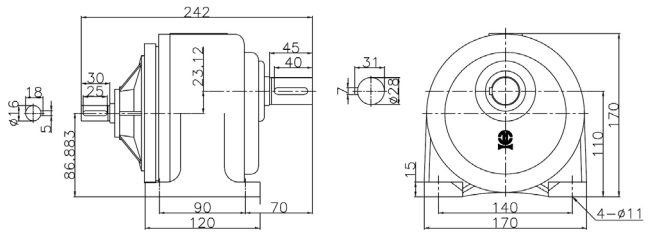


41.2Kg / 2.00L	RATIO	250,300,⋯,1500,1800

小型齒輪減速(馬達) Small Gear Reducer (Motor)

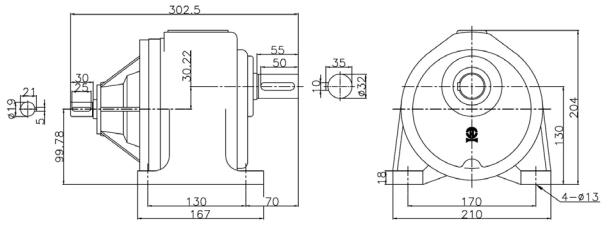
0.75KW(1HP)	
臥式 Horizontal Type	
Type: GHD	

圖 D23	GHD-28-750-5S~25S
28	



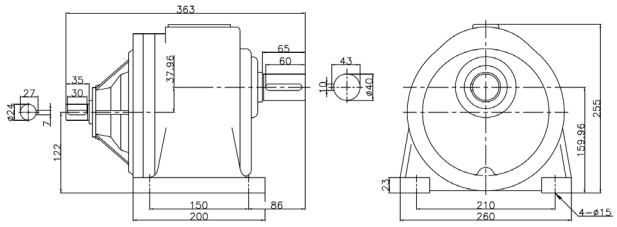
5.6Kg / 0.53L	RATIO	5,10,12.5,15,20,25

圖 D24	GHD-32-750-30S~120S
32	



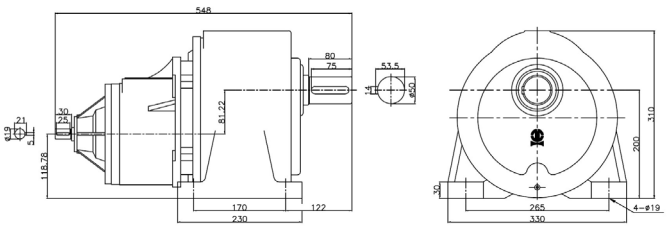
21.1Kg / 0.80L	RATIO	30,40,50,60,75,90,100,120

圖 D25	GHD-40-750-40S~200S
40	



40.1Kg / 2.00L	RATIO	40,50,60,75,90,100,120,150,180,200

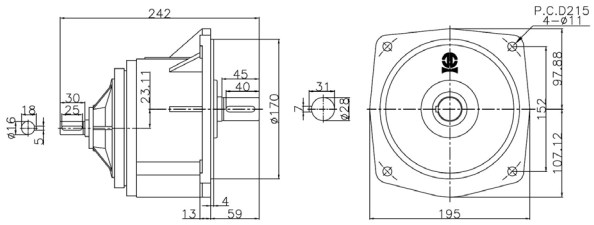
圖 D26	GHD-50-750-250S~1800S
50	



88.9Kg / 4.00L	RATIO	250,300,⋯,1500,1800

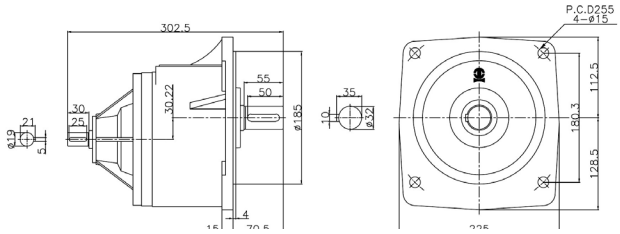
0.75KW(1HP)	
立式 Vertical Type	
Type: GVD	

圖 D27	GVD-28-750-5S~25S
28	



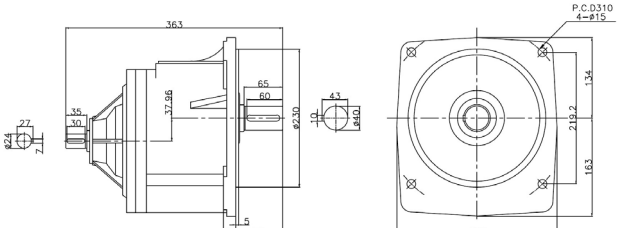
6.4Kg / 0.53L	RATIO	5,10,12.5,15,20,25

圖 D28	GVD-32-750-30S~120S
32	



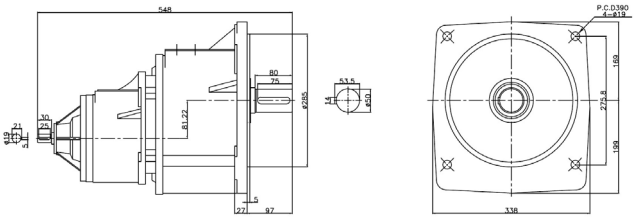
21.2Kg / 0.80L	RATIO	30,40,50,60,75,90,100,120

圖 D29	GVD-40-750-40S~200S
40	



40.5Kg / 2.00L	RATIO	40,50,60,75,90,100,120,150,180,200

圖 D30	GVD-50-750-250S~1800S
50	

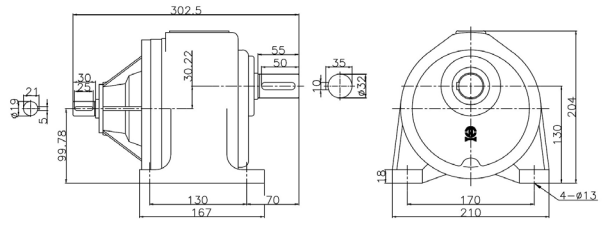


88.5Kg / 4.00L	RATIO	250,300,⋯,1500,1800

1.5KW(2HP)	
臥式 Horizontal Type	
Type: GHD	

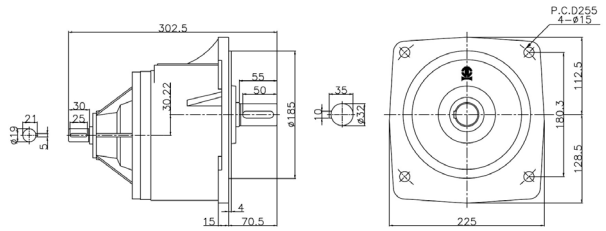
1.5KW(2HP)	
立式 Vertical Type	
Type: GVD	

圖 D31 32	GHD-32-1500-5S~30S



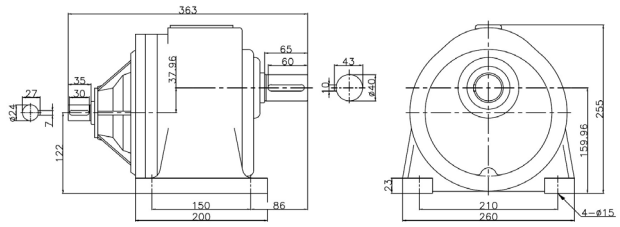
21.1Kg / 0.80L	RATIO	5,10,12.5,15,20,25,30

圖 D34 32	GVD-32-1500-5S~30S



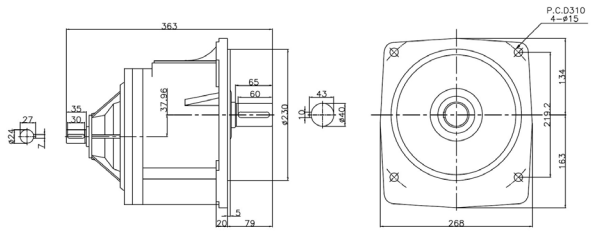
21.2Kg / 0.80L	RATIO	5,10,12.5,15,20,25,30

圖 D32 40	GHD-40-1500-40S~100S



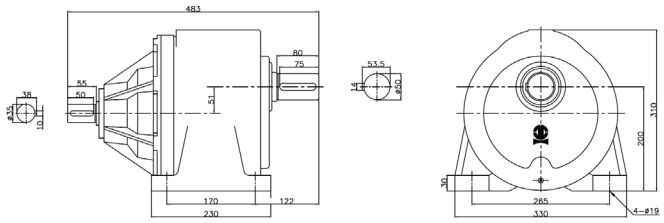
40.1Kg / 2.00L	RATIO	40,50,60,75,90,100

圖 D35 40	GVD-40-1500-40S~100S



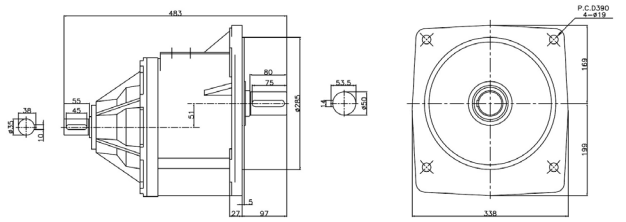
40.5Kg / 2.00L	RATIO	40,50,60,75,90,100

圖 D33 50	GHD-50-1500-120S~200S



75.3Kg / 3.20L	RATIO	120,150,180,200

圖 D36 50	GVD-50-1500-120S~200S



74.9Kg / 3.20L	RATIO	120,150,180,200

小型齒輪減速(馬達) Small Gear Reducer (Motor)

2.2KW(3HP)	
臥式 Horizontal Type	
Type: GHD	

2.2KW(3HP)	
立式 Vertical Type	
Type: GVD	

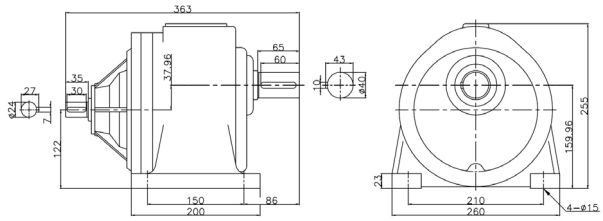
圖 D37 40	GHD-40-2200-5S~40S	
		
40.1Kg / 2.00L	RATIO	5,10,12.5,15,20,25,30,40

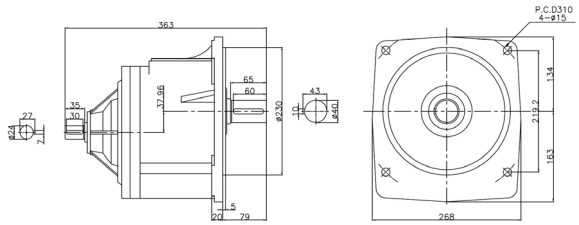
圖 D39 40	GVD-40-2200-5S~40S	
		
40.5Kg / 2.00L	RATIO	5,10,12.5,15,20,25,30,40

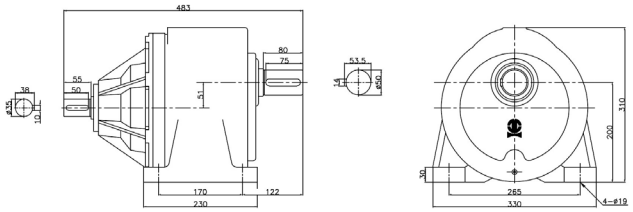
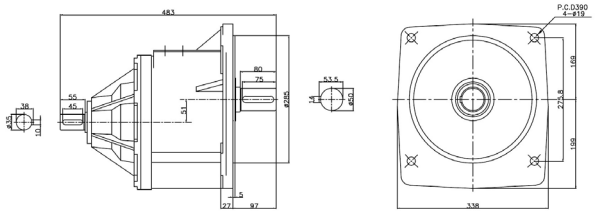
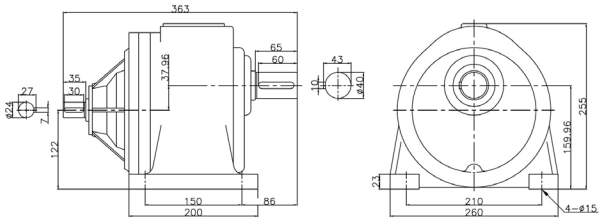
圖 D38 50	GHD-50-2200-50S~100S	
		
75.3Kg / 3.20L	RATIO	50,60,75,90,100

圖 D40 50	GVD-50-2200-50S~100S	
		
74.9Kg / 3.20L	RATIO	50,60,75,90,100

3.7KW(5HP)	
臥式 Horizontal Type	
Type: GHD	

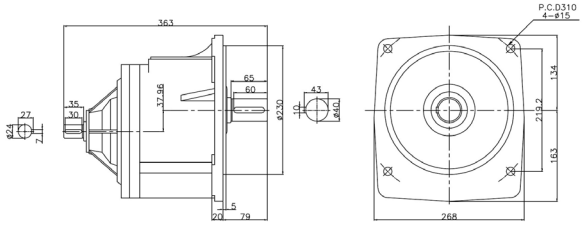
3.7KW(5HP)	
立式 Vertical Type	
Type: GVD	

圖 D41	GHD-40-3700-5S~20S
40	



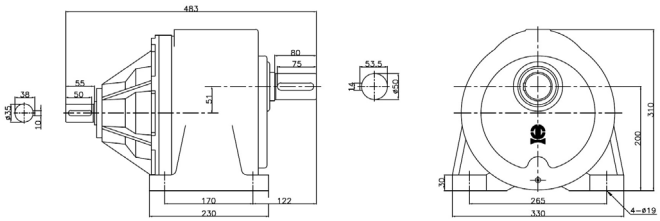
40.1Kg / 2.00L	RATIO	5,10,12.5,15,20

圖 D43	GVD-40-3700-5S~20S
40	



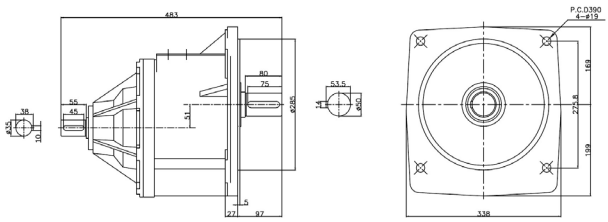
40.5Kg / 2.00L	RATIO	5,10,12.5,15,20

圖 D42	GHD-50-3700-5S~60S
50	



75.3Kg / 3.20L	RATIO	5,10,12.5,15,20,25,30,40,50,60

圖 D44	GVD-50-3700-5S~60S
50	



74.9Kg / 3.20L	RATIO	5,10,12.5,15,20,25,30,40,50,60