LEONHARD® 雷奧哈德

定速電磁制動電機

Electromagnetic brake motor

15W-250W

定速電磁制動電機
Electromagnetic brake motor

15w
70*70mm

● 電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated

電機型號 Motor model		出力 output	電壓 voltage	頻率 frequency	電流 current	起動轉矩 Starting torque	額定轉矩 Rated torque	額定轉速 Rated speed	電容容量/耐壓 Capacitance/ pressure endurance
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor	W	V	Hz	A	mN·m	mN·m	r/min	μF/AC
3IK15A-AM	3IK15GN-AM	15	單相110	50/60	0.36	95	118	1250/1550	5/250V
3IK15A-CM	3IK15GN-CM	15	單相220	50/60	0.16	95	118	1250/1550	1.2/450V

middle reducer gearbox
■ 標準減速箱
速比：1：3~180

● 減速機特性 Motor characteristics

單位=上段：N.m/下段：kgfcm
Unit = upper segment: N · m/lower segment: kgfcm

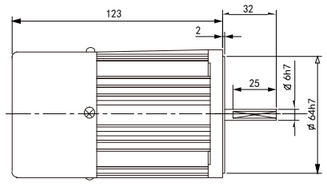
型號 Model	轉速 speed r/min	450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
	減速比 Reduction ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	40	60	75	90	100	120	150	180	250
3IK15GN-□	Kg/cm	3.20	3.90	5.40	6.50	8.10	9.70	10.80	13.50	16.20	19.40	19.40	24.20	29.10	34.90	38.80	43.60	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
	N.m	0.31	0.38	0.53	0.64	0.79	0.95	1.06	1.32	1.59	1.90	1.90	2.37	2.85	3.42	3.81	4.28	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90

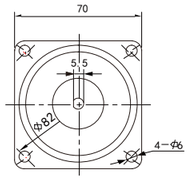
■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

- 減速機品名的□中爲減速比的數值，電動機品名的□爲電機電壓類型
  The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- ▭ 色表示與電動機同一方向運轉，其它則爲相反方向
  ▭ The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速（50HZ：1350r/min 60HZ:1620r/min）爲基準除以減速比而算出的數值。
  The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
  實際轉速將隨負載大小變化而比所示數值減少2-20%左右
  The actual speed will vary with the load size than the value shown by the reduction of about 2-20% its desirable to install the intermediate
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比爲10的中間減速機
  speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.

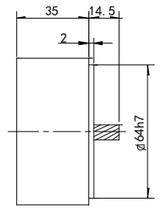
尺寸圖 Size drawing

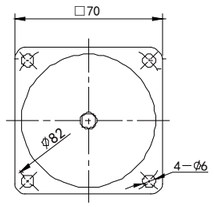
■ 圓軸電機 Circular Shaft Motor
3IK15A-CM



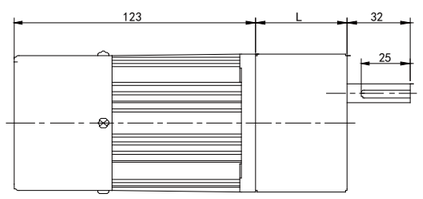


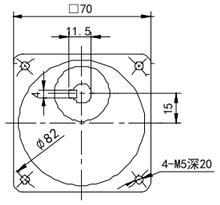
■ 中間減速機 Intermediate Speed Reducer
3GN10 K



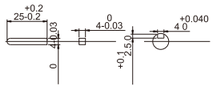


■ 定速電磁制動電機 Constant Speed Electromagnetic Brake Motor
3IK15GN-CM+3GN□K L=35.5 3-15
L=46.5 18-180





■ 鍵 Key



定速電磁制動電機
Electromagnetic brake motor
25w
80*80mm

● 電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated

電機型號 Motor model		出力 output	電壓 voltage	頻率 frequency	電流 current	起動轉矩 Starting torque	額定轉矩 Rated torque	額定轉速 Rated speed	電容容量/耐壓 Capacitance/ pressure endurance
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor	W	V	Hz	A	mN·m	mN·m	r/min	μF/AC
4IK25A-AM	4IK25GN-AM	25	單相110	50/60	0.52	150	205	1300/1600	6/250V
4IK25A-CM	4IK25GN-CM	25	單相220	50/60	0.25	150	205	1300/1600	1.5/450V
4IK25A-S3M	4IK25GN-S3M	25	三相380	50/60	0.12	470	205	1300/1600	
4IK25A-SM	4IK25GN-SM	25	三相220	50/60	0.2	470	205	1300/1600	

middle reducer gearbox
■ 標準減速箱
速比：1：3~180

middle real axis
■ 直角中實減速箱
速比：1：10~180

quill shaft
■ 直角中空減速箱
速比：1：10~180

● 減速機特性 Motor characteristics

單位=上段：N.m/下段：kgfcm
Unit = upper segment: N · m/lower segment: kgfcm

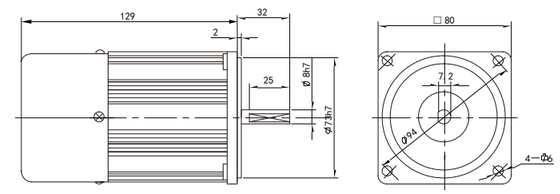
型號 Model	轉速 speed r/min	450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
	減速比 Reduction ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	250
4IK25GN-□	Kg/cm	3.40	4.10	5.70	6.80	8.50	10.20	11.30	14.20	17.00	20.40	20.40	25.60	30.70	36.80	40.90	46.20	55.40	69.20	80.00	80.00	80.00	80.00	80.00	80.00
	N.m	0.33	0.40	0.56	0.67	0.83	1.00	1.11	1.39	1.67	2.00	2.00	2.51	3.01	3.61	4.01	4.53	5.43	6.79	7.84	7.84	7.84	7.84	7.84	7.84

■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

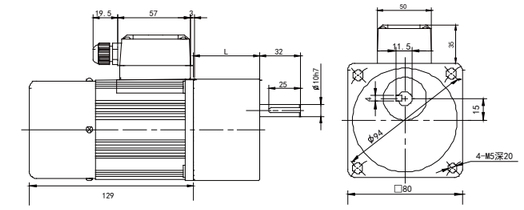
- 減速機品名的□中爲減速比的數值，電動機品名的□爲電機電壓類型
  The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- 色表示與電動機同一方向運轉，其它則爲相反方向
  The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速（50HZ：1350r/min 60HZ:1620r/min）爲基準除以減速比而算出的數值。
  The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
  實際轉速將隨負載大小變化而比所示數值減少2-20%左右
  The actual speed will vary with the load size than the value shown by the reduction of about 2-20% its desirable to install the intermediate
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比爲10的中間減速機
  speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.

尺寸圖 Size drawing

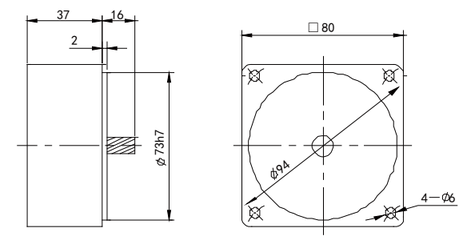
■ 圓軸電機 Circular Shaft Motor
4IK25A-CM



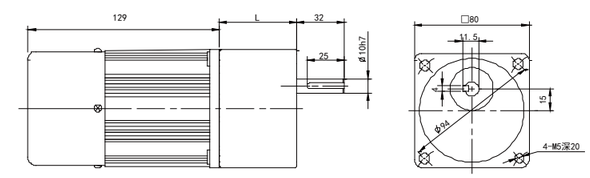
■ 齒軸帶接綫盒 Motor With Terminal Box
4IK25RGN-CMT+4GN□K L=38.5 3-18
L=52 20-180



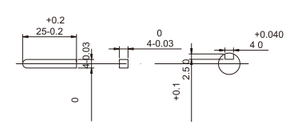
■ 中間減速機 Intermediate Speed Reducer
4GN10K



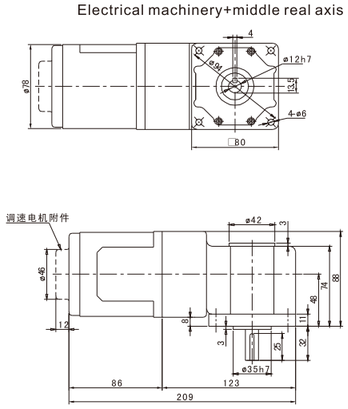
■ 定速電磁制動電機 Constant Speed Electromagnetic Brake Motor
4IK25GN-CM+4GN□K L=38.5 3-18
L=52 20-180



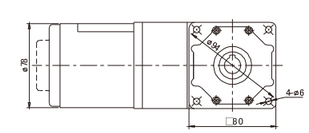
■ 鍵 Key



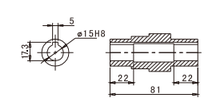
電機+中實軸
Electrical machinery+middle real axis



電機+中空軸
Electrical machinery+quill shaft



中空軸
Quill shaft



定速電磁制動電機
Electromagnetic brake motor

40w
90*90mm

● 電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated

電機型號 Motor model		出力 output	電壓 voltage	頻率 frequency	電流 current	起動轉矩 Starting torque	額定轉矩 Rated torque	額定轉速 Rated speed	電容容量/耐壓 Capacitance/ pressure endurance
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor	W	V	Hz	A	mN·m	mN·m	r/min	μF/AC
5IK40A-AM	5IK40GN-AM	40	單相110	50/60	0.65	270	300	1300/1600	10/250V
5IK40A-CM	5IK40GN-CM	40	單相220	50/60	0.33	270	300	1300/1600	2.5/450V
5IK40A-S3M	5IK40GN-S3M	40	三相380	50/60	0.18	970	300	1300/1600	
5IK40A-SM	5IK40GN-SM	40	三相220	50/60	0.31	970	300	1300/1600	

middle reducer gearbox
■ 標準減速箱
速比：1：3~180

middle real axis
■ 直角中實減速箱
速比：1：10~180

quill shaft
■ 直角中空減速箱
速比：1：10~180

● 減速機特性 Motor characteristics

單位=上段：N.m/下段：kgfcm
Unit = upper segment: N · m/lower segment: kgfcm

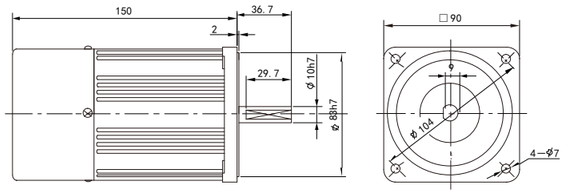
型號 Model	轉速 speed r/min	450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
	減速比 Reduction ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	250
5IK40GN-□	Kg/cm	8.30	9.90	13.80	16.50	20.70	24.80	27.50	34.40	41.30	49.60	62.10	74.50	89.40	99.30	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	N.m	0.81	0.97	1.35	1.62	2.03	2.43	2.70	3.37	4.05	4.86	4.86	6.09	7.30	8.76	9.73	9.80	9.80	9.80	9.80	9.80	9.80	9.80	9.80	9.80

■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

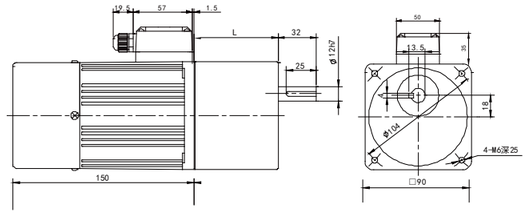
- 減速機品名的□中爲減速比的數值，電動機品名的□爲電機電壓類型
  The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- 色表示與電動機同一方向運轉，其它則爲相反方向
  The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速（50HZ：1350r/min 60HZ:1620r/min）爲基準除以減速比而算出的數值。
  The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
  實際轉速將隨負載大小變化而比所示數值減少2-20%左右
  The actual speed will vary with the load size than the value shown by the reduction of about 2-20% its desirable to install the intermediate
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比爲10的中間減速機
  speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.

尺寸圖 Size drawing

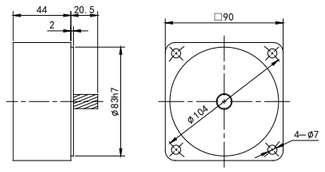
■ 圓軸電機 Circular Shaft Motor
5IK40A-CM



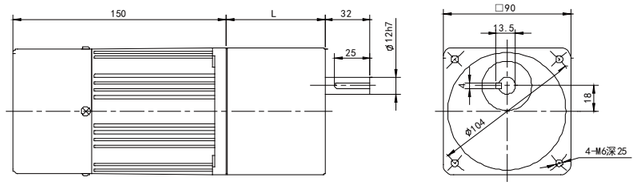
■ 齒軸帶接綫盒 Motor With Terminal Box
5IK40GN-CMT+5GN□K L=47.3 3-15 L=69.3 18-180



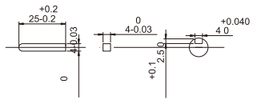
■ 中間減速機 Intermediate Speed Reducer
5GN10 K



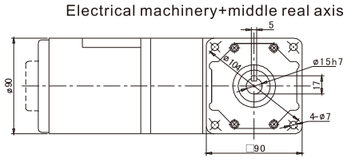
■ 定速電磁制動電機 Constant Speed Electromagnetic Brake Motor
5IK40GN-CM+5GN□K L=47.3 3-15 L=69.3 18-180



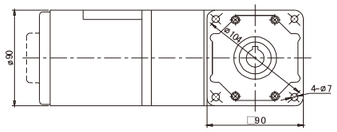
■ 鍵 Key



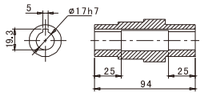
電機+中實軸
Electrical machinery+middle real axis

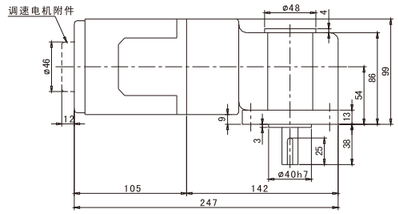


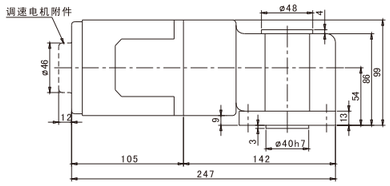
電機+中空軸
Electrical machinery+quill shaft



中空軸
Quill shaft







定速電磁制動電機
Electromagnetic brake motor
60w
90*90mm

● 電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated

電機型號 Motor model		出力 output	電壓 voltage	頻率 frequency	電流 current	起動轉矩 Starting torque	額定轉矩 Rated torque	額定轉速 Rated speed	電容容量/耐壓 Capacitance/ pressure endurance
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor	W	V	Hz	A	mN·m	mN·m	r/min	μF/AC
5IK60A-AMF	5IK60GU-AMF	60	單相110	50/60	0.90	397	450	1300/1600	14/250V
5IK60A-CMF	5IK60GU-CMF	60	單相220	50/60	0.52	397	450	1300/1600	3.5/450V
5IK60A-S3MF	5IK60GU-S3MF	60	三相380	50/60	0.18	970	450	1300/1600	
5IK60A-SMF	5IK60GU-SMF	60	三相220	50/60	0.31	970	450	1300/1600	

middle reducer gearbox
■ 標準減速箱
速比：1：3~180

middle real axis
■ 直角中實減速箱
速比：1：10~180

quill shaft
■ 直角中空減速箱
速比：1：10~180

● 減速機特性 Motor characteristics

單位=上段：N.m/下段：kgfcm
Unit = upper segment: N · m/lower segment: kgfcm

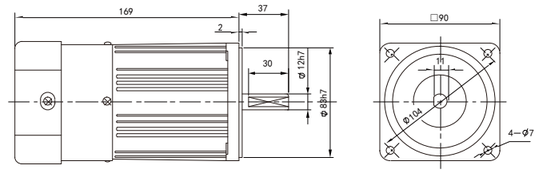
型號 Model	轉速speed r/min	450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
	減速比 Reduction ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	250
5IK60GN-□	Kg/cm	12.20	14.60	20.30	24.30	30.40	36.50	40.50	45.60	54.80	65.70	73.00	82.50	99.00	119.00	132.00	165.00	198.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00
	N.m	1.20	1.43	1.99	2.38	2.99	3.58	3.97	4.47	5.37	6.44	7.15	8.09	9.70	11.66	12.94	16.17	19.40	19.60	19.60	19.60	19.60	19.60	19.60	19.60

■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

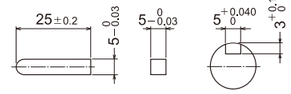
- 減速機品名的□中爲減速比的數值，電動機品名的□爲電機電壓類型
  The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- 色表示與電動機同一方向運轉，其它則爲相反方向
  The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速（50HZ：1350r/min 60HZ:1620r/min）爲基準除以減速比而算出的數值。
  The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
  實際轉速將隨負載大小變化而比所示數值減少2-20%左右
  The actual speed will vary with the load size than the value shown by the reduction of about 2-20% its desirable to install the intermediate
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比爲10的中間減速機
  speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.

尺寸圖 Size drawing

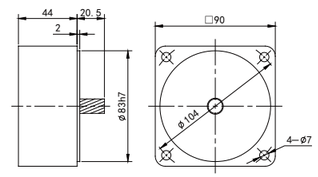
■ 圓軸電機 Circular Shaft Motor
5IK60A-CMF



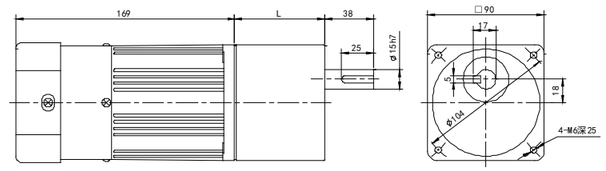
■ 鍵 Key (60W.90W.120W.140W.160W. 180W.200W.250W共用)



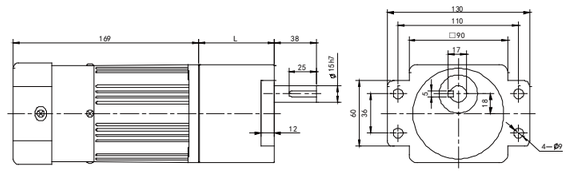
■ 中間減速機 Intermediate Speed Reducer
5GN10K (60W.90W.120W共用)



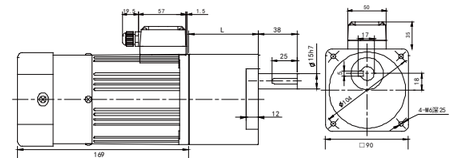
■ 定速電磁制動電機 Constant Speed Electromagnetic Brake Motor
5IK60GU-CFM+5GU□KB L=69.3 18-180 L=47.3 3-15



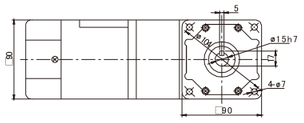
■ 定速电磁制动电机 Constant Speed Electromagnetic Brake Motor
5IK60GU-CFM+5GU□K L=69.3 18-180 L=47.3 3-15

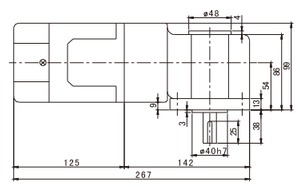


■ 齒軸帶接綫盒 Motor With Terminal Box
5IK60GU-CMFT+5GU□KB L=69.3 18-180 L=47.3 3-15

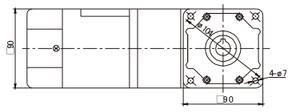


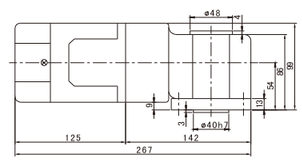
電機+中實軸
Electrical machinery+middle real axis



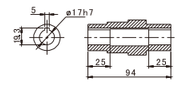


電機+中空軸
Electrical machinery+quill shaft





中空軸
Quill shaft



定速電磁制動電機
Electromagnetic brake motor
90w
90*90mm

●電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated

電機型號 Motor model		出力 output	電壓 voltage	頻率 frequency	電流 current	起動轉矩 Starting torque	額定轉矩 Rated torque	額定轉速 Rated speed	電容容量/耐壓 Capacitance/ pressure endurance
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor	W	V	Hz	A	mN·m	mN·m	r/min	μF/AC
5IK90A-AMF	5IK90GU-AMF	90	單相110	50/60	1.2	580	670	1300/1600	20/250V
5IK90A-CMF	5IK90GU-CMF	90	單相220	50/60	0.5	580	670	1300/1600	5.0/450V
5IK90A-S3MF	5IK90GU-S3MF	90	三相380	50/60	0.38	2400	670	1300/1600	
5IK90A-SMF	5IK90GU-SMF	90	三相220	50/60	0.66	2400	670	1300/1600	

middle reducer gearbox
■ 標準減速箱
速比：1：3~180

middle real axis
■ 直角中實減速箱
速比：1：10~180

quill shaft
■ 直角中空減速箱
速比：1：10~180

● 減速机特性 Motor characteristics

単位＝上段：N m / 下段：kgfcm
Unit = upper segment: N · m/lower segment: kgfcm

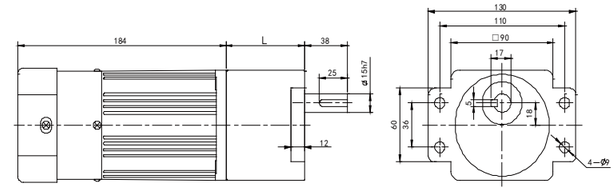
型號 Model	轉速 speed r/min	450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
	減速比 Reduction ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	250
5IK90GN-□	Kg/cm	15.82	18.98	26.33	31.63	39.49	47.35	52.35	59.29	71.22	85.41	94.90	107.14	128.57	154.08	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00
	N.m	1.55	1.86	2.58	3.1	3.87	4.64	5.13	5.81	6.98	8.37	9.3	10.5	12.6	15.1	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6

■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

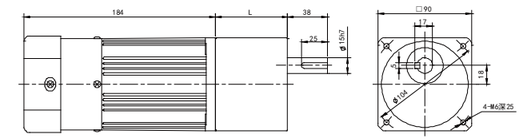
- 減速機品名的□中爲減速比的數值，電動機品名的□爲電機電壓類型
  The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- 色表示與電動機同一方向運轉，其它則爲相反方向
  The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速（50HZ：1350r/min 60HZ:1620r/min）爲基準除以減速比而算出的數值。
  The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
  實際轉速將隨負載大小變化而比所示數值減少2-20%左右
  The actual speed will vary with the load size than the value shown by the reduction of about 2-20% its desirable to install the intermediate
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速比爲10的中間減速機
  speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.

尺寸圖 Size drawing

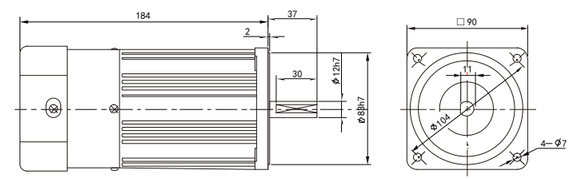
■ 定速電磁制動電機 Constant Speed Electromagnetic Brake Motor
5IK90GU-CFM+5GU□K L=47.3 3-15 L=69.3 18-180



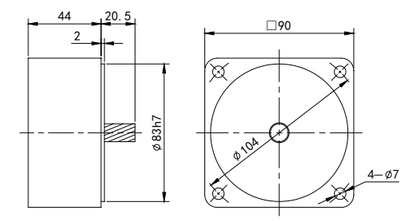
■ 定速電磁制動電機 Constant Speed Electromagnetic Brake Motor
5IK90GU-CFM+5GU□KB L=47.3 3-15 L=69.3 18-180



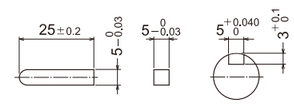
■ 圓軸電機 Circular Shaft Motor
5IK90A-CMF



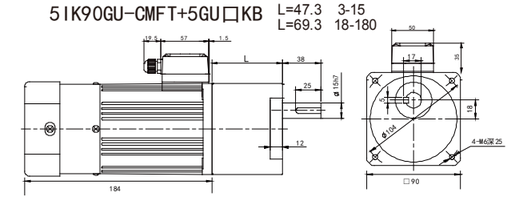
■ 中間減速機 Intermediate Speed Reducer
5GN10K (60W.90W.120W共用)



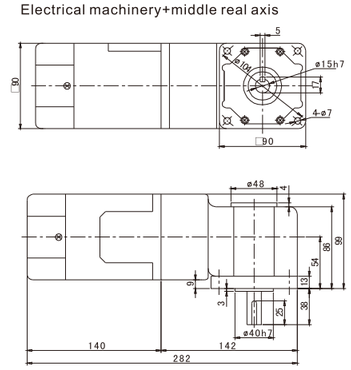
■ 鍵 Key (60W.90W.120W.140W.160W. 180W.200W.250W共用)



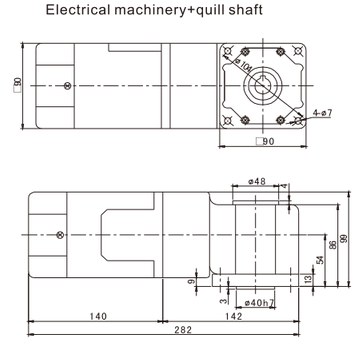
■ 齿轴带接线盒 Motor With Terminal Box
5IK90GU-CMFT+5GU口KB L=47.3 3-15 L=69.3 18-180



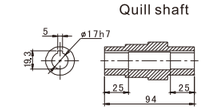
電機+中實軸
Electrical machinery+middle real axis



電機+中空軸
Electrical machinery+quill shaft



中空軸
Quill shaft



定速電磁制動電機
Electromagnetic brake motor
120w
90*90mm

●電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated

電機型號 Motor model		出力 output	電壓 voltage	頻率 frequency	電流 current	起動轉矩 Starting torque	額定轉矩 Rated torque	額定轉速 Rated speed	電容容量/耐壓 Capacitance/ pressure endurance
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor	W	V	Hz	A	mN·m	mN·m	r/min	μF/AC
5IK120A-AMF	5IK120GU-AMF	120	單相110	50/60	1.68	650	800	1300/1600	24/250V
5IK120A-CMF	5IK120GU-CMF	120	單相220	50/60	0.81	650	800	1300/1600	6.0/450V
5IK120A-S3MF	5IK120GU-S3MF	120	三相380	50/60	0.43	2900	800	1300/1600	
5IK120A-SMF	5IK120GU-SMF	120	三相220	50/60	0.74	2900	800	1300/1600	

middle reducer gearbox
■ 標準減速箱
速比：1：3~180

middle real axis
■ 直角中實減速箱
速比：1：10~180

quill shaft
■ 直角中空減速箱
速比：1：10~180

● 減速机特性 Motor characteristics

◇ 50Hz

單位＝上段：N·m / 下段：kgfcm
Unit = upper segment: N · m/lower segment: kgfcm

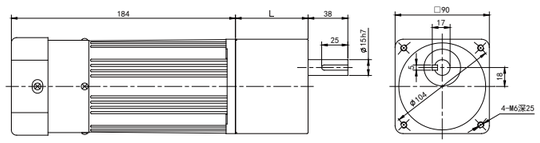
型號 Model	轉速 speed r/min	450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
	減速比 Reduction ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	250
5IK120GN-□	Kg/cm	23.20	27.80	38.70	46.40	58.00	69.60	77.40	87.00	104.00	125.00	139.00	156.00	188.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00
	N.m	2.28	2.73	3.79	4.55	5.69	6.83	7.59	8.53	10.24	12.29	13.65	15.36	18.43	19.61	19.61	19.61	19.61	19.61	19.61	19.61	19.61	19.61	19.61	19.61

■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

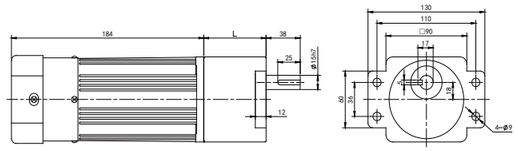
- 減速機品名的□中爲減速比的數值，電動機品名的□爲電機電壓類型
  The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- 色表示與電動機同一方向運轉，其它則爲相反方向
  The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速（50HZ：1350r/min 60HZ:1620r/min）爲基準除以減速比而算出的數值。
  The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
  實際轉速將隨負載大小變化而比所示數值減少2-20%左右
  The actual speed will vary with the load size than the value shown by the reduction of about 2-20% its desirable to install the intermediate
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比爲10的中間減速機
  speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.

尺寸圖 Size drawing

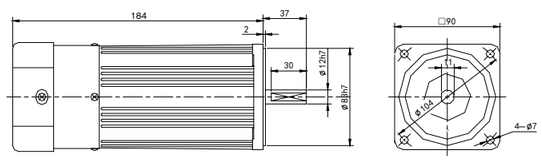
■ 定速電磁制動電機 Constant Speed Electromagnetic Brake Motor
5IK120GU-CFM+5GU□KB L=47.3 3-15
L=69.3 18-180



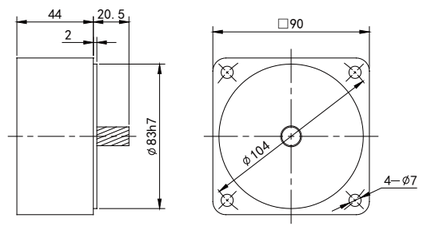
■ 定速電磁制動電機 Constant Speed Electromagnetic Brake Motor
5IK120GU-CFM+5GU□K L=47.3 3-15
L=69.3 18-180



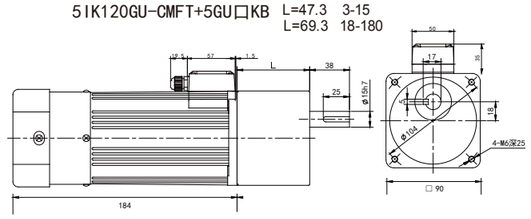
■ 圓軸電機 Circular Shaft Motor
5IK120A-CMF



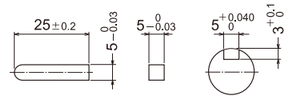
■ 中間減速機 Intermediate Speed Reducer
5GN10K (60W.90W.120W共用)



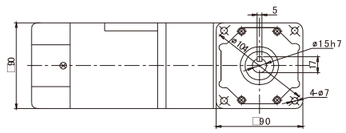
■ 齒軸帶接线盒 Motor With Terminal Box
5IK120GU-CMFT+5GU□KB L=47.3 3-15
L=69.3 18-180

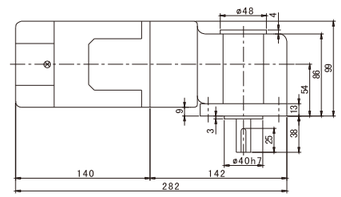


■ 鍵 Key (60W.90W.120W.140W.160W. 180W.200W.250W共用)

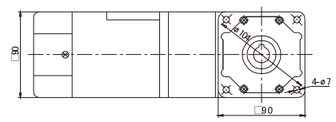


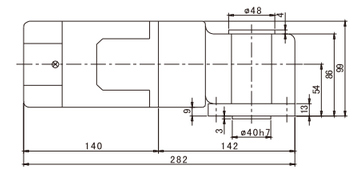
電機+中實軸
Electrical machinery+middle real axis



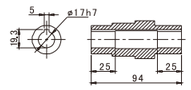


電機+中空軸
Electrical machinery+quill shaft





中空軸
Quill shaft



定速電磁制動電機
Electromagnetic brake motor
140w
90*90mm

● 電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated

電機型號 Motor model		出力 output	電壓 voltage	頻率 frequency	電流 current	起動轉矩 Starting torque	額定轉矩 Rated torque	額定轉速 Rated speed	電容容量/耐壓 Capacitance/ pressure endurance
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor	W	V	Hz	A	mN·m	mN·m	r/min	μF/AC
5IK140A-AMF	5IK140GU-AMF	140	單相110	50/60	2.35	900	1000	1350/1650	30/250V
5IK140A-CMF	5IK140GU-CMF	140	單相220	50/60	2.35	900	1000	1350/1650	7.0/450V
5IK140A-S3MF	5IK140GU-S3MF	140	三相380	50/60	0.56	3500	1000	1350/1650	
5IK140A-SMF	5IK140GU-SMF	140	三相220	50/60	0.12	3500	1000	1350/1650	

middle reducer gearbox
■ 標準減速箱
速比：1：3~180

middle real axis
■ 直角中實減速箱
速比：1：10~180

quill shaft
■ 直角中空減速箱
速比：1：10~180

● 減速机特性 Motor characteristics

◇ 50Hz

單位＝上段：N·m／下段：kgfcm
Unit = upper segment: N · m/lower segment: kgfcm

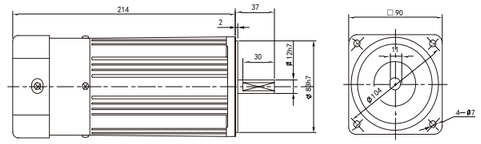
型號 Model	轉速 speed r/min	450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
	減速比 Reduction ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	250
5IK140GN-□	Kg/cm	24.50	29.10	40.00	47.70	59.30	70.90	78.70	88.30	105.30	126.30	140.30	157.30	189.30	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00
	N.m	2.41	2.2.86	3.92	4.68	5.82	6.96	7.72	8.66	10.37	12.42	13.78	15.49	18.56	19.74	19.74	19.74	19.74	19.74	19.74	19.74	19.74	19.74	19.74	19.74

■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

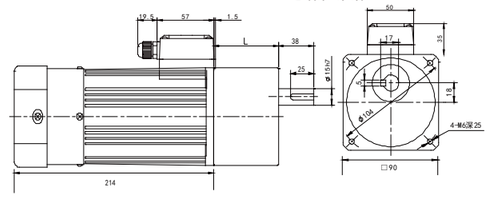
- 減速機品名的□中爲減速比的數值，電動機品名的□爲電機電壓類型
  The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- 色表示與電動機同一方向運轉，其它則爲相反方向
  The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速（50HZ：1350r/min 60HZ:1620r/min）爲基準除以減速比而算出的數值。
  The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
  實際轉速將隨負載大小變化而比所示數值減少2-20%左右
  The actual speed will vary with the load size than the value shown by the reduction of about 2-20% its desirable to install the intermediate
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比爲10的中間減速機
  speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.

尺寸圖 Size drawing

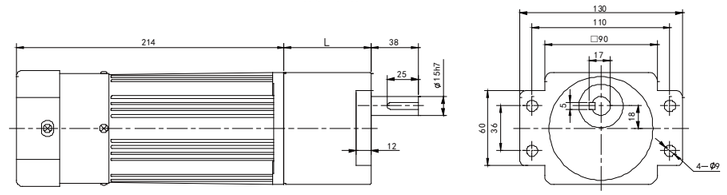
■ 圓軸電機 Circular Shaft Motor
5IK140A-CMF



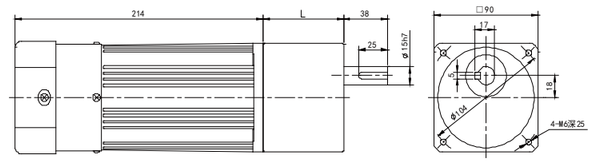
■ 齒軸帶接綫盒 Motor With Terminal Box
5IK140GU-CMFT+5GU□KB L=47.3 3-15 L=69.3 18-180



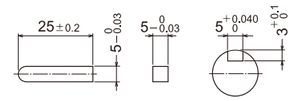
■ 定速電磁制動電機 Constant Speed Electromagnetic Brake Motor
5IK140GU-CFM+5GU□K L=47.3 3-15 L=69.3 18-180



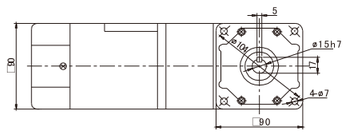
■ 定速電磁制動電機 Constant Speed Electromagnetic Brake Motor
5IK140GU-CFM+5GU□KB L=47.3 3-15 L=69.3 18-180

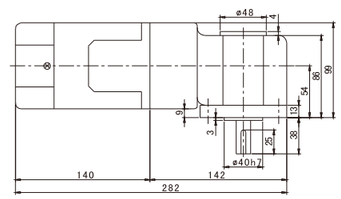


■ 鍵 Key (60W.90W.120W.140W.160W.180W.200W.250W共用)

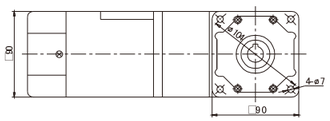


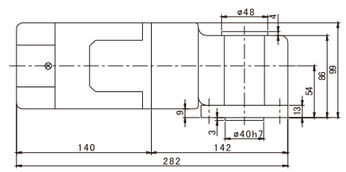
電機+中實軸
Electrical machinery+middle real axis



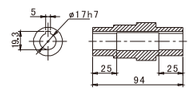


電機+中空軸
Electrical machinery+quill shaft





中空軸
Quill shaft



定速電磁制動電機
Electromagnetic brake motor
160w
104*104mm

● 電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated

電機型號 Motor model		出力 output	電壓 voltage	頻率 frequency	電流 current	起動轉矩 Starting torque	額定轉矩 Rated torque	額定轉速 Rated speed	電容容量/耐壓 Capacitance/ pressure endurance
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor	W	V	Hz	A	mN·m	mN·m	r/min	μF/AC
6IK160A-AMF	6IK160GU-AMF	160	單相110	50/60	2.4	950	1260	1350	32/250V
6IK160A-CMF	6IK160GU-CMF	160	單相220	50/60	1.25	950	1260	1350	8.0/450V
6IK160A-S3MF	6IK160GU-S3MF	160	三相380	50/60	0.55	3700	1260	1400	
6IK160A-SMF	6IK160GU-SMF	160	三相220	50/60	0.95	3700	1260	1400	

middle reducer gearbox
■ 標準減速箱
速比：1：3~180

middle real axis
■ 直角中實減速箱
速比：1：10~180

quill shaft
■ 直角中空減速箱
速比：1：10~180

● 減速机特性 Motor characteristics

単位＝上段：N m / 下段：kgfcm
Unit = upper segment: N · m/lower segment: kgfcm

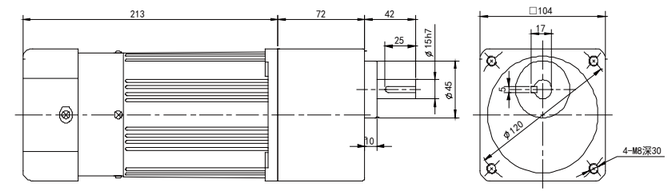
型號 Model	轉速 speed r/min	450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
	減速比 Reduction ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	250
6IK160GN-□	Kg/cm	24.1	28.8	40.1	48.1	60.1	72.1	81.3	90.3	108	130	147	163	196	235	279	327	392	400	400	400	400	400	400	400
	N.m	2.36	2.83	3.93	4.71	5.89	7.07	7.96	8.85	10.6	12.7	14.35	16.0	19.2	23.0	27.6	32.0	38.4	39.2	39.2	39.2	39.2	39.2	39.2	39.2

■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

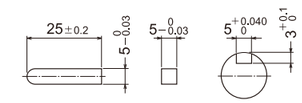
- 減速機品名的□中爲減速比的數值，電動機品名的□爲電機電壓類型
  The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- 色表示與電動機同一方向運轉，其它則爲相反方向
  The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速（50HZ：1350r/min 60HZ:1620r/min）爲基準除以減速比而算出的數值。
  The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
  實際轉速將隨負載大小變化而比所示數值減少2-20%左右
  The actual speed will vary with the load size than the value shown by the reduction of about 2-20% its desirable to install the intermediate
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比爲10的中間減速機
  speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.

尺寸圖 Size drawing

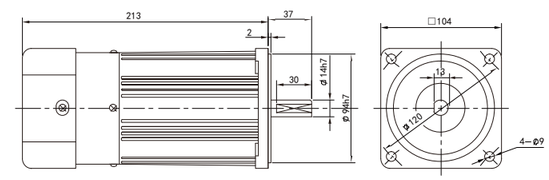
■ 定速電磁制動電機 Constant Speed Electromagnetic Brake Motor
6IK160GU-CFM+6GU(3-180)K



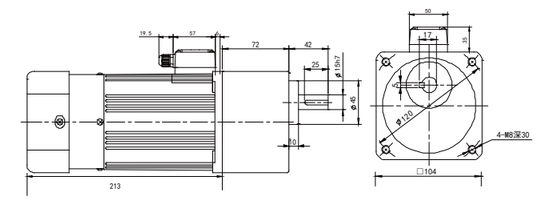
■ 鍵 Key (60W.90W.120W.140W.160W. 180W.200W.250W共用)



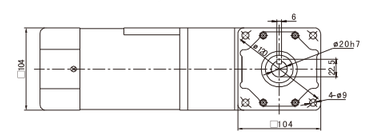
■ 圓軸電機 Circular Shaft Motor
6IK160A-CMF

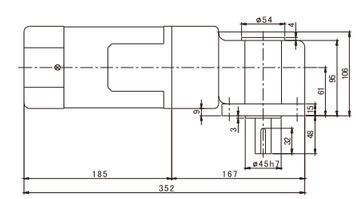


■ 齒軸帶接綫盒 Motor With Terminal Box
6IK160GU-CMFT+6GU(3-180)K

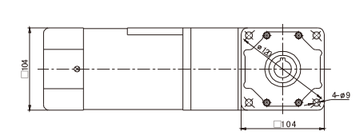


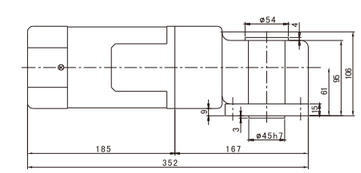
電機+中實軸
Electrical machinery+middle real axis



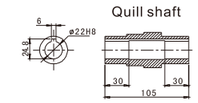


電機+中空軸
Electrical machinery+quill shaft





中空軸
Quill shaft



定速電磁制動電機
Electromagnetic brake motor
180w
104*104mm

● 電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated

電機型號 Motor model		出力 output	電壓 voltage	頻率 frequency	電流 current	起動轉矩 Starting torque	額定轉矩 Rated torque	額定轉速 Rated speed	電容容量/耐壓 Capacitance/ pressure endurance
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor	W	V	Hz	A	mN·m	mN·m	r/min	μF/AC
6IK180A-AMF	6IK180GU-AMF	180	單相110	50/60	3.0	1020	1300	1350/1650	36/250V
6IK180A-CMF	6IK180GU-CMF	180	單相220	50/60	1.3	1020	1300	1350/1650	9.0/450V
6IK180A-S3MF	6IK180GU-S3MF	180	三相380	50/60	0.83	4000	1300	1350/1650	
6IK180A-SMF	6IK180GU-SMF	180	三相220	50/60	1.44	4000	1300	1350/1650	

middle reducer gearbox
■ 標準減速箱
速比：1：3~180

middle real axis
■ 直角中實減速箱
速比：1：10~180

quill shaft
■ 直角中空減速箱
速比：1：10~180

● 減速機特性 Motor characteristics

單位=上段：N.m/下段：kgfcm
Unit = upper segment: N · m/lower segment: kgfcm

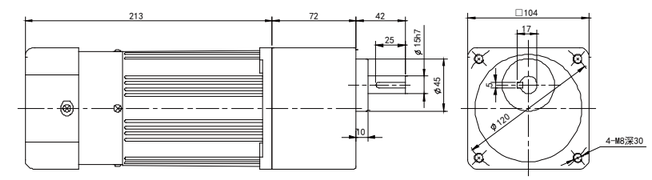
型號 Model	轉速 speed r/min	450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
	減速比 Reduction ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	250
6IK180GN-□	Kg/cm	30	36.02	50.00	60.00	74.59	90.00	104.08	120.41	144.90	172.45	202.04	231.63	277.55	317.35	369.39	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00
	N.m	2.94	3.53	4.9	5.88	7.31	8.82	10.2	11.8	14.2	16.9	19.8	22.7	27.2	31.1	36.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2

■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

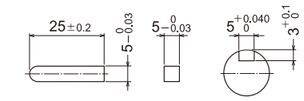
- 減速機品名的□中爲減速比的數值，電動機品名的□爲電機電壓類型
  The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- 色表示與電動機同一方向運轉，其它則爲相反方向
  The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速（50HZ：1350r/min 60HZ:1620r/min）爲基準除以減速比而算出的數值。
  The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
  實際轉速將隨負載大小變化而比所示數值減少2-20%左右
  The actual speed will vary with the load size than the value shown by the reduction of about 2-20% its desirable to install the intermediate
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比爲10的中間減速機
  speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.

尺寸圖 Size drawing

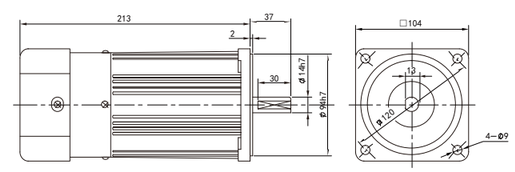
■ 定速電磁制動電機 Constant Speed Electromagnetic Brake Motor
6IK180GU-CFM+6GU(3-180)K



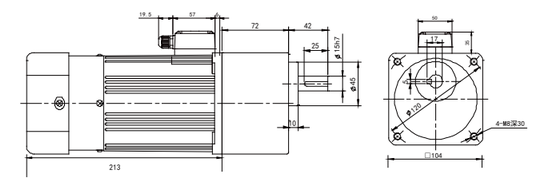
■ 鍵 Key (60W.90W.120W.140W.160W.180W.200W.250W共用)



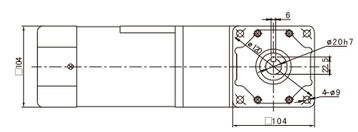
■ 圓軸電機 Circular Shaft Motor
6IK180A-CMF

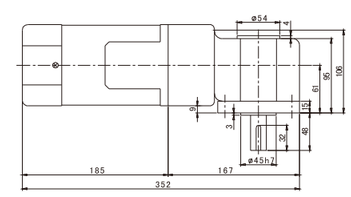


■ 齒軸帶接綫盒 Motor With Terminal Box
6IK180GU-CMFT+6GU(3-180)K

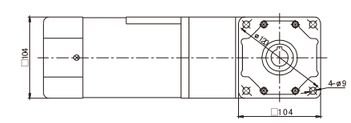


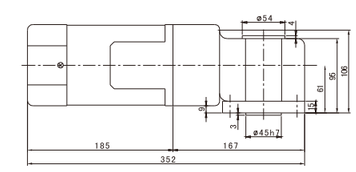
電機+中實軸
Electrical machinery+middle real axis



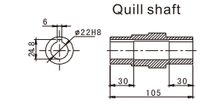


電機+中空軸
Electrical machinery+quill shaft





中空軸
Quill shaft



定速電磁制動電機
Electromagnetic brake motor
200w
104*104mm

●電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated

電機型號 Motor model		出力 output	電壓 voltage	頻率 frequency	電流 current	起動轉矩 Starting torque	額定轉矩 Rated torque	額定轉速 Rated speed	電容容量/耐壓 Capacitance/ pressure endurance
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor	W	V	Hz	A	mN·m	mN·m	r/min	μF/AC
6IK200A-AMF	6IK200GU-AMF	200	單相110	50/60	3.2	1100	1470	1350/1650	40/250V
6IK200A-CMF	6IK200GU-CMF	200	單相220	50/60	1.6	1100	1470	1350/1650	10/450V
6IK200A-S3MF	6IK200GU-S3MF	200	三相380	50/60	0.75	4200	1460	1350/1650	
6IK200A-SMF	6IK200GU-SMF	200	三相220	50/60	1.45	4200	1460	1350/1650	

middle reducer gearbox
■ 標準減速箱
速比：1：3~180

middle real axis
■ 直角中實減速箱
速比：1：10~180

quill shaft
■ 直角中空減速箱
速比：1：10~180

● 減速機特性 Motor characteristics

單位=上段：N.m/下段：kgfcm
Unit = upper segment: N · m/lower segment: kgfcm

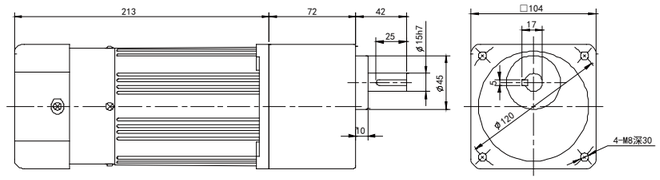
型號 Model	轉速 speed r/min	450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
	減速比 Reduction ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	250
6IK200GN-□	Kg/cm	35.2	42.3	58.8	70.6	88.2	106	126	147	176	212	253	294	353	400	400	400	400	400	400	400	400	400	400	400
	N.m	3.52	4.23	5.88	7.06	8.82	10.6	12.6	14.7	17.6	21.2	25.3	29.4	35.3	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2

■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

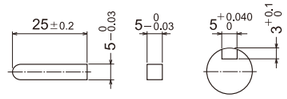
- 減速機品名的□中爲減速比的數值，電動機品名的□爲電機電壓類型
  The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- 色表示與電動機同一方向運轉，其它則爲相反方向
  The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速（50HZ：1350r/min 60HZ:1620r/min）爲基準除以減速比而算出的數值。
  The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
  實際轉速將隨負載大小變化而比所示數值減少2-20%左右
  The actual speed will vary with the load size than the value shown by the reduction of about 2-20% its desirable to install the intermediate
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比爲10的中間減速機
  speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.

尺寸圖 Size drawing

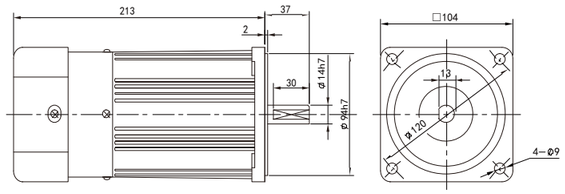
■ 定速电磁制动电机 Constant Speed Electromagnetic Brake Motor
6IK200GU-CFM+6GU(3-180)K



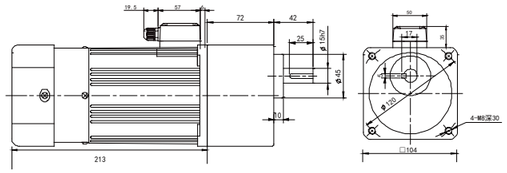
■ 鍵 Key (60W.90W.120W.140W.160W. 180W.200W.250W共用)



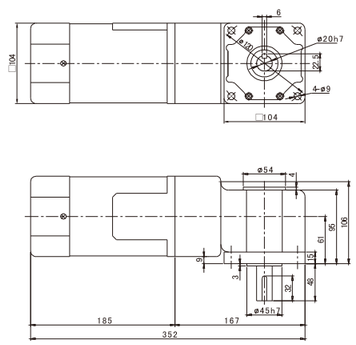
■圓軸电机 Circular Shaft Motor
6IK200A-CMF



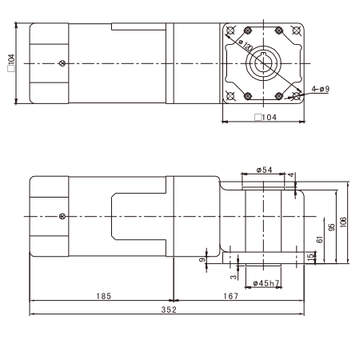
■ 齒軸帶接綫盒 Motor With Terminal Box
6IK200GU-CMFT+6GU(3-180)K



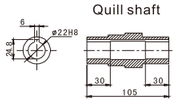
電機+中實軸
Electrical machinery+middle real axis



電機+中空軸
Electrical machinery+quill shaft



中空軸
Quill shaft



定速電磁制動電機
Electromagnetic brake motor
250w
104*104mm

● 電機特性 Motor characteristics

■ 規格 連續額定 Specifications Continuous Rated

電機型號 Motor model		出力 output	電壓 voltage	頻率 frequency	電流 current	起動轉矩 Starting torque	額定轉矩 Rated torque	額定轉速 Rated speed	電容容量/耐壓 Capacitance/ pressure endurance
圓軸電機 Circular shaft motor	齒軸電機 Gear shaft motor	W	V	Hz	A	mN·m	mN·m	r/min	μF/AC
6IK250A-AMF	6IK250GU-AMF	250	單相110	50/60	3.5	1200	1790	1350/1600	48/250V
6IK250A-CMF	6IK250GU-CMF	250	單相220	50/60	1.8	1200	1790	1350/1600	12/450V
6IK250A-S3MF	6IK250GU-S3MF	250	三相380	50/60	1.05	4500	1800	1350/1600	
6IK250A-SMF	6IK250GU-SMF	250	三相220	50/60	1.6	4500	1800	1350/1600	

■ middle reducer gearbox
標準減速箱
速比：1：3~180

■ middle real axis
直角中實減速箱
速比：1：10~180

■ quill shaft
直角中空減速箱
速比：1：10~180

● 減速機特性 Motor characteristics

單位=上段：N.m/下段：kgfcm
Unit = upper segment: N · m/lower segment: kgfcm

型號 Model	轉速 speed r/min	450	375	270	225	180	150	135	108	90	75	68	54	45	38	34	27	23	18	15	14	11	9	8	5
	減速比 Reduction ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	250
6IK250GN-□	Kg/cm	43	520	71.6	86	107	129	152	179	215	258	308	358	400	400	400	400	400	400	400	400	400	400	400	400
	N.m	4.3	5.2	7.16	8.6	10.7	12.9	15.2	17.9	21.5	25.8	30.8	35.8	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2

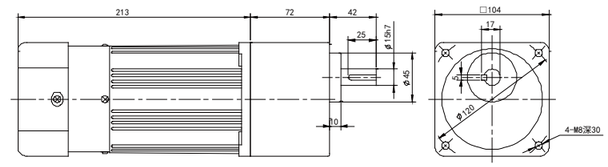
■ 裝有減速機時的容許轉矩 Permissible Torque Equipped With Reduction

- 減速機品名的□中爲減速比的數值，電動機品名的□爲電機電壓類型
  The allowable torque when the gear unit is installed Reducer in the deceleration ratio of the value and the motor name for the motor voltage type.
- □ 色表示與電動機同一方向運轉，其它則爲相反方向
  □ The color indicates the same direction as the motor, and the other is the opposite direction.
- 轉速是與電動機的同步轉速（50HZ：1350r/min 60HZ:1620r/min）爲基準除以減速比而算出的數值。
  The speed is calculated by dividing the speed of the motor by the speed (50HZ: 1350r / min 60HZ: 1620r / min) divided by the reduction ratio.
  實際轉速將隨負載大小變化而比所示數值減少2-20%左右
  The actual speed will vary with the load size than the value shown by the reduction of about 2-20% its desirable to install the intermediate
- 希望以大于下表的減速比進一步減速時，可在電動與減速機之間安裝與減速機之間安裝減速比爲10的中間減速機
  speed reducer with a reduction ratio of 10 between the electric motor and the reducer when the speed reduction ratio is greater than the reduction ratio of the following table.

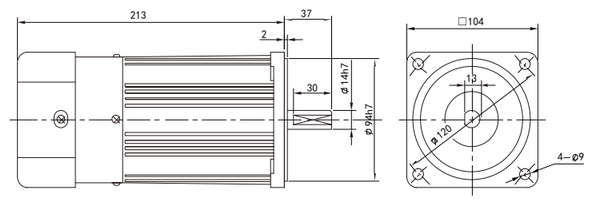
LEONHARD® 雷奧哈德

尺寸圖 Size drawing

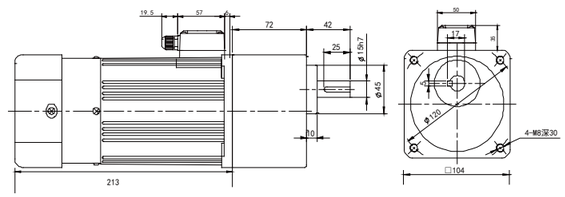
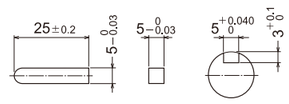
■ 定速電磁制動電機 Constant Speed Electromagnetic Brake Motor
6IK250GU-CFM+6GU(3-180)K



■ 圓軸電機 Circular Shaft Motor
6IK250A-CMF



■ 齒軸帶接綫盒 Motor With Terminal Box
6IK250GU-CMFT+6GU(3-180)K



■ 鍵 Key (60W.90W.120W.140W.160W. 180W.200W.250W共用)