COMPACT GEAR MOTOR

HIGH PERFORMANCE | MINI DRIVE

MY Edition-V4 (2018)

COMPACT GEAR MOTOR

K SERIES

GENERAL SPECIFICATION
COMPACT ELECTRIC MOTOR AND GEAR REDUCER

General Specification

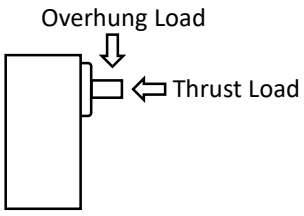
Features	Specifications
Insulation Resistance	100 MΩ or more when DC500V is applied between the windings and the frame after rated motor operation under normal ambient temperature and humidity.
Dielectric Strength	Sufficient to withstand 1.5 kV at 50Hz and 60Hz applied between the windings and the frame for 1 minute after rated motor operation under normal operating temperature and humidity.
Temperature Rise	Temperature rise of windings are 80°C or less measured by the resistance change method after rated motor operation with connecting a gearhead or equivalent heat radiation plate.*
Insulation Class	Class B (130ºc).
Overheat Protection	Impedance protected. (Optional Overload Thermal Protection)
Motor Protection	IP20 for motor with conductive wire; IP54 for motor with terminal box.
Operating Temperature	-10 ºc to +50 ºc.
Ambient Humidity	85% or less (non-condensation).
Conformity Certification	CE / CCC

Life Service Factor

Type of Load	Life Service Factor			Specifications:
	5hrs/day Operation	8hrs/day Operation	24hrs/days Operation	
Constant Load	0.8	1	1.5	The service life of the motor usually rely on the quality of its ball bearing. Standard service life of ball bearing is 10,000 hours* Load: Constant continuous running Frame: 80°c (roller bearing), 50°c (sinter oil bearing) Life expectancy may vary due to frequent load variation Remark : Constant Load: Continuous one way operation. Light Load: Frequent start-stop, cam impact. Medium Load: Instant CW/CCW, instant stop.
Light Load	1.2	1.5	2	
Medium Load	1.5	2	2.5	

Gearhead Operation Efficiency Permissible Trust Load and Overhung Load

Gear Model	Gear Ratio	Max Torque (kg.cm)	Permissible Overhung Load (kgf)		Permissible Thrust Load (kgf)	Gearhead Operation Efficiency
			10mm from shaft end	20mm from shaft end		
2GN □ K	3 ~ 18	25	5	8	3	81%
	25 ~ 75		12	18		73%
	90 ~ 300		12	18		66%
3GN □ K	3 ~ 18	50	8	12	4	81%
	25 ~ 75		15	25		73%
	90 ~ 240		15	25		66%
4GN □ K	3 ~ 18	80	10	15	5	81%
	25 ~ 75		20	30		73%
	90 ~ 300		20	30		66%
5GN □ K	3 ~ 18	100	25	35	10	81%
	25 ~ 75		30	45		73%
	90 ~ 240		30	45		66%
5GU □ K 5GU □ KB	3 ~ 9	200	40	50	15	81%
	12.5 ~ 18		45	60		81%
	25 ~ 75		50	70		73%
	90 ~ 240		50	70		66%



COMPACT GEAR MOTOR

K SERIES

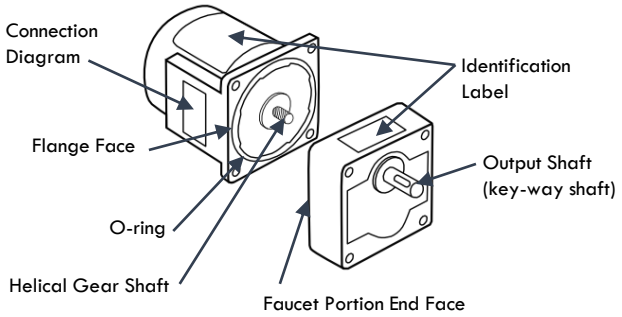
MOUNTING INSTRUCTION
COMPACT ELECTRIC MOTOR AND GEAR REDUCER

Precautions for Installation
Check the technical specification and voltage on the identification label of the gear motor with your design requirement before any installation. For helical gear motor, gearhead should well-match with the motor dimension and specification.

Round shaft motor
After drilling holes on the mounting plate, use 4 screws, washers and nuts to fasten the motor onto the mounting plate (screws and nuts are not offered with this motor). Please make sure there is no gap between the motor's flange face and mounting plate.

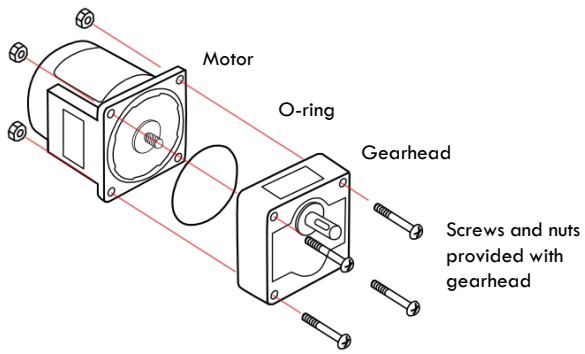
Helical gear shaft motor (in combination with gearhead)
After drilling holes on the mounting plate, use the 4 screws and nuts supplied with the gearhead to fasten gearhead and motor (come with O-ring) on the mounting plate. Make sure the gearhead is installed properly on the motor and there is no gap between the motor flange face and gearhead.

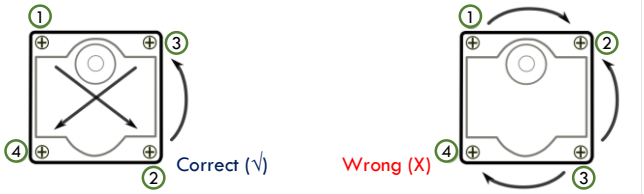
Gearhead is combined with a motor using the recessed areas on each unit as guides. DO NOT contact a tooth tip of pinion shaft to a tooth tip of gearhead. Set each tooth of motor and gearhead correctly and gently press and turn the gearhead in clockwise and counter-clockwise.



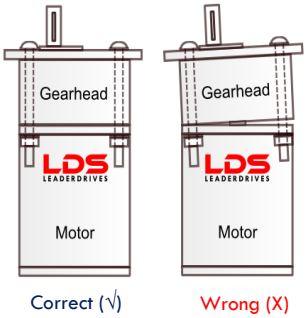
Remark: When face mounting the geared motor to an assembly, Do not remove or twist the gearhead from or on the motor. This will cause the O-ring to deform (become distorted or damaged) resulting in grease leakage when reassembled

During replacement or maintenance, please replace the o-ring if it is damaged or distorted. You may contact your LDS representative to obtain the o-ring for free of charge.



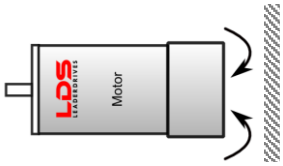


Tightening of fixing bolts
Do not forcedly assemble the motor and gear head. Do not damage the tooth of the motor and gear head. Incorrect assembly results in abnormal noise generation or shortened unit life.



Gearhead Installation
Install gearhead properly and there is no gap between the motor flange face and gearhead.

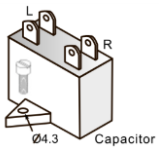
On installation, the mounting of the motor must allow a free-flow of cooling air over the surface of the motor (leave a minimum 20~30mm space from the rear cover of the motor).



Screw used for installation			
Model (Motor)	Model (Gearhead)	Screw Size	Installation Torque
2IK/2RK	2GN	M4	20kgfcm
3IK/3RK	3GN	M5	25kgfcm
4IK/4RK	4GN	M5	25kgfcm
5IK/5RK	5GN/5GU	M6	30kgfcm

Important Instruction for Capacitor Installation
Before installation, please ensure correct capacitor is being used with your motor (supplied with single phase motor).

Capacitor should be installed at least 10cm away from the motor by using M4 screws. Too close to a motor will result in excessive heat hence shorten the lifespan of capacitor.



COMPACT GEAR MOTOR

K SERIES

GLOSSARY OF TERMS
COMPACT ELECTRIC MOTOR AND GEAR REDUCER

AC Electric Motor
An AC motor is an electric motor that is driven by alternating current. It is used in the conversion of electrical energy into mechanical energy. This mechanical energy is made from utilizing the force that is exerted by the rotating magnetic fields produced by the alternating current that flows through its coils.

Ambient Temperature
Ambient temperature is the temperature of the air surrounding the motor. This is the threshold point or temperature the motor assumes when shut off and completely cool. Higher ambient temperatures increase internal pressure, which will require an increase to the service factor used. High or low temperatures may employ different seal materials and lubrication viscosities.

Ampere / Current (A / Amp / Amps)
Amps figures on the nameplate are just the motor's maximum ratings. They do not reflect actual operating conditions of your machine/equipment. Use a True-RMS Industrial Logging Multi-meter with a clamp accessory to measure the ampere to check if the motor operation is under-loaded (and thus costly to operate) or over-loaded (and at risk of burnout).

Causes of Motor Failure
Motor overload occurs when a motor is under excessive load. Its symptoms are excessive current draw, insufficient torque and overheating. **Motor overheat** refers to an unexpected rise of temperature in motor windings that can cause damage to the motor stator. It is a major cause of premature wear on electrical and mechanical components that ultimately leads to motor failure.

Coactive Axial Cooling Fan
Axial Fan is designed for force-air cooling of electric motor, and to protect the electric motor by keeping them at an optimal cooling temperature. LDS uses renown Maglev Motor Axial Fan with high airflow (40CFM) to enhance a superior life expectancy of the motor (especially for single phase motor).

Efficiency (%)
Motor efficiency is the ratio between the amount of mechanical work the motor performs and the electrical power it consumes to do the work, represented by a percentage. A higher percentage represents a more efficient motor. Electric motor efficiency is dependent on (but not limited to) design, materials, construction, rating, load, power quality, and operating conditions.

Electrical Grounding (Earthing)
Electrical grounding / Grounding / Earthing refer to a safety measure used to prevent people from accidentally coming in contact with electrical hazards. Electrical Grounding is essential in every equipment and can be done through attaching the ground conductor to any of the mounting bolt of the motor.

Frequency (Hz)
To operate successfully, the motor frequency must match the power system (supply) frequency. In Malaysia and Singapore, the frequency is 50 Hz (cycles). In other parts of the world, the frequency may be 50Hz or 60 Hz.

Insulation class
Insulation classes group insulations by their resistance to thermal aging and failure. There is two common insulation classes in LDS products:
Insulation Class B : Max 130°C / Insulation Class F : Max 155°C.

Inverter (Frequency Inverter) vs. Speed Controller.
A frequency inverter changes output voltage frequency and magnitude to vary the speed, power, and torque of a connected three phase induction motor to meet load conditions. A speed controller controls the rotation speed of single phase capacitor run induction motor via a modular tacho-generator (permanent magnet type) connected to the rear shaft of the motor (rotor).

Over-voltage refers to the voltages exceeding rated voltage designed in the motor. A 10% overvoltage means motor will be overload by approximately 10%.

Poles
LDS motors are available 2Pole (3000rpm), 4Pole (1500rpm) and 6Pole (1000rpm), in 50Hz System (8pole – 750rpm is not available).

Power Rating / Output Power
A power rating is a measurement of the maximum amount of power that can be used with a specific tool or device. It is measured in Watt (W), Kilowatt (kW) or Horsepower (HP).

Rated Output Torque [Kgm / Kgcm / Nm]
This is the limit of mechanical strength of the speed reduction mechanism. Make sure that the applied torque, including the acceleration torque and load fluctuation, does not exceed the permissible torque (the load should never be greater than what the motor is rated for).

Rated Voltage (V)
Motors are designed to yield optimal performance when operating at a specific voltage level. LDS Motors are available in single-phase (1Ø) 100-110V and 220-240V, three-phase (3Ø) 220-240V and 380-415V.

Service Factor (S.F)
Service factor can be generally defined as an application's required value over the rated value of the unit. Service factor should be determined for conditions such as non-uniform load, hours of service, and elevated ambient temperature. A service factor of 1.0 means a unit has just enough capacity to handle the application. There is no tolerance for additional requirements, which could cause the gearbox to overheat or fail.

Temperature / Temperature Rise in Motor
Temperature rise is the change within a motor when operating at full load. When a motor is operating, all energy losses of the motor are transformed into heat, causing the motor temperature to rise. In an ambient temperature area, surface temperature of LDS's 1-phase motor will rise to 80°C after 60minute of continuous operation; 3-phase motor's surface temperature will rise to 40°C after 60minute of continuous operation. (Use infrared thermometer to measure the motor temperature. Do not judge the motor temperature by touching the motor surface, or you could get injured).

Thermal Overload Protection (TP)
Thermal protection is a method of electric motor protection that is activated when a motor operating at the rated voltage locks up for some reason with the power still being supplied. It uses a thermal relay inside the motor to break the circuit to the winding coil at a temperature below the level that would cause burning (overheating). Other protection methods including overload relay, motor thermostat and fuse.

Type of Load
High shock or impact loads can cause increased wear on the gear teeth and shaft bearings. This wear could cause premature failure if not accounted for when sizing. These loads will require an increased service factor. **Uniform loads** are loads that remain constant during the application, while non-uniform loads change during the application. **Non-uniform loads**, even if small, will require a higher service factor than uniform loads. An example of a uniform load would be a conveyor with a consistent product amount riding on it. A non-uniform load would be any sort of intermittent cutting application. This intermittent cutting force causes a periodic increase in the torque on the gearbox, which is a non-uniform load.

Under-Voltage will cause under-power of electric motor. The motor slip also increases proportionally to the square of the voltage drop. As a result, the motor will be running slower with a lower output and the process would not be producing as expected.

Unbalanced Voltages are unequal voltage values on 3-phase circuits that can exist anywhere in a power distribution system.

PRODUCTS OVERVIEW

COMPACT GEAR MOTOR (6W ~ 180W)

 Round-Shaft Electric Motor 2,800 ▪ 1,400 ▪ 900rpm 6W~180W	 Key-Shaft Electric Motor 2,800 ▪ 1,400 ▪ 900rpm 40W~180W	 Induction & Reversible Gear Motor (Capacitor Run) 6W~180W	 Induction Gear Motor (with Flange gearhead & Terminal Box)
 Compact Gear Motor with Decimal Gearhead Gear Ratio 1/300 ~1/2400	 Electro-Magnetic Brake Gear Motor (Brake 220V) 6W~180W	 Clutch & Brake Gear Motor (Clutch & Brake DC24V) 40W~180W	 Hollow Shaft Spiral Bevel Gear Motor 40W~180W
 Variable Speed Gear Motor with Analogue Controller 6W~180W, 1Phase	 Variable Speed Motor with Analogue Controller 6W~180W, 1Phase	 Compact Gear Motor With Compact IGBT Inverter 25W~180W, 1Phase	 Compact Spiral Bevel Gear Motor with Compact IGBT Inverter 40W~180W
 Worm Gear Package Gear reduction ratio 5~80 40W~180W	 Worm Gear Package with Electromagnetic Brake 40W~180W	 Worm Gear Package Gear Reduction Ratio 125~14,400	 Variable Speed Gear Motor with Analogue Controller 40W~180W

COMPACT GEAR MOTOR

K SERIES

PRODUCT CODING SYSTEM
COMPACT ELECTRIC MOTOR AND GEAR REDUCER

5 I K 150 V GN - S EF

Motor Frame Size
- **2** : 60mm Sq. (2.36")
- **3** : 70mm Sq. (2.76")
- **4** : 80mm Sq. (3.15")
- **5** : 90mm Sq. (3.54")

Motor Type
- **I** : Induction
- **R** : Reversible

Series
- **K** : K series

Output Power
- **6W**
- **15W**
- **25W**
- **40W**
- **60W**
- **90W**
- **120W**
- **150W**
- **180W**

Option
- **R** : Variable Speed
- **V** : Inverter Duty

Output Power
- **A** : Round Shaft (D-cut)
- **GN** : Helical Gear Shaft
- **GX** : Helical Gear Shaft *
- **GB** : For Clutch & Brake

Voltage
- **A** : 1Ø100V, 50Hz
- **A2** : 1Ø110V, 50Hz
- **C** : 1Ø220V, 50Hz
- **C2** : 1Ø240V, 50Hz
- **S** : 3Ø220V, 50Hz
- **S2** : 3Ø240V, 50Hz
- **S3** : 3Ø380V, 50Hz
- **S4** : 3Ø415V, 50Hz
- **TQ** : 3Ø240/415V, 50Hz
- **U** : 3Ø220/380V, 50Hz

Option/ Accessories
- **B** : Electro-magnetic Brake
- **EF** : Co-active Powerful Cooling Fan (40CFM)
- **F** : Standard Cooling Fan (Shaft-mounted type)
- **N** : Special Key Shaft
- **T** : Terminal Box (IP54)
- **W** : Thermal Overload Protection (Signal Type)
- **Y** : Thermal Overload Protection (Automatic Reset Type)
- **2P** : 2Pole Motor (2,800rpm)
- **VS** : Viton Oil Seal

Remark
* Default motor design is 4pole, 50Hz (1,400rpm)

PRODUCTS AT A GLANCE

Round-Shaft Electric Motor
2,800 ▪ 1,400rpm
6W~180W

Key-Shaft Electric Motor
1,400 ▪ 2,800rpm
40W~180W

Induction & Reversible
Gear Motor (Capacitor Run)
6W~180W

Induction Gear Motor
(with Flange gearhead &
Terminal Box)

Compact Gear Motor with
Decimal Gearhead
Gear Ratio 1/300 ~1/2400

Electro-Magnetic Brake
Gear Motor (Brake 220V)
6W~180W

Clutch & Brake Gear Motor
(Clutch & Brake DC24V)
40W~180W

Variable Speed Gear Motor
with Analogue Controller
6W~180W, 1Phase

Variable Speed Motor
with Analogue Controller
6W~180W, 1Phase

Compact Gear Motor
With Compact IGBT Inverter
25W~180W, 1Phase

Worm Gear Package
Gear reduction ratio 5~100
40W~180W

Worm Gear Package
with Electromagnetic Brake
40W~180W

Worm Gear Package
Gear Reduction
Ratio 125~14,400

Hollow Shaft
Spiral Bevel Gear Motor
40W~180W

Compact Spiral Bevel Gear Motor
With Compact IGBT Inverter
40W~180W, 1Phase

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

COMPACT GEAR MOTOR

K SERIES

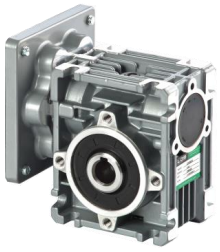
PRODUCT CODING SYSTEM
COMPACT GEAR REDUCER

Parallel Shaft Gearhead
Square Gearbox Type
Gear Reduction Ratio 3~300
For Motor Power 6W ~ 180W
(Part No: 2GN_K, 3GN_K,
4GN_K, 5GN_K, 5GU_KB)

Parallel Shaft Gearhead
Hinge Type Gearbox
(a.k.a Flange Type Gearbox)
Gear Reduction Ratio 3~240
For Motor Power 60W ~ 180W
(Part No: 5GU_K)

Decimal Gear (use with Gearhead)
Gear Reduction Ratio mutiply by 10x
For Motor Power 40W ~ 180W
(Part No: 5GN10X, 5GU10X)

Spiral Bevel Gearhead
Right Angle Hollow Shaft Type
Gear Reduction Ratio
9~ 225 (370 ~ 2250)
For Motor Power 40W ~ 180W
(Part No: 5GN_RH / 5GU_RH)



Worm Gearhead
Right Angle Hollow Shaft Type
Gear Reduction Ratio
5~ 80 (100 ~ 14400)
For Motor Power 40W ~ 180W
(DMRV#30, DMRS#30, 8MRV#30,
DMRV#40, DMRS#40, 8MRV#40)

5 **GU** **240** **K** **B** **-**

Gearhead Frame Size
2 : 60mm Sq. (2.36")
3 : 70mm Sq. (2.76")
4 : 80mm Sq. (3.15")
5 : 90mm Sq. (3.54")

Gearhead Type
GN : For helical gear motor 6W-40W
GU : For helical gear motor 60W-180W

Gear Reduction Ratio
1/3 ~ 1/300

Design
K : Ball Bearing
X : Decimal Gearhead (10X)

5GU Gear Box Option
For Motor Power
60W ~ 180W Motor
[ ] : Flange Type Geadhead
B : Square type Geadhead

Option
[ ] : Wet Grease Filled
BQ : Dry Grease Filled
VS : Viton Oil Seal for Output Shaft

Permissible Output Torque
Parallel Shaft Gear Reducer Ratio and Output Torque (Single Reduction, Based on 4Pole Motor, 50Hz)

Gear Reduction Ratio				3	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90
Gearbox Output Speed (RPM)				450	270	225	180	150	108	90	75	54	45	37.5	27	22.5	18	15
Rated Power	6W	2GN	Max Output Torque (kgcm)	1.2	1.9	2.3	2.9	3.4	4.7	5.7	6.8	9.3	11	13	16	20	24	30
	15W	3GN		3	4.7	5.7	7.1	8.5	12	14	18	23	28	33	46	50	50	50
	25W	4GN		5	7.8	9.4	12	14	20	23	28	38	46	55	76	80	80	80
	40W	5GN		7.3	12	15	18	22	30	36	43	54	65	77	100	100	100	100
	60W	5GU		12	19	22	28	34	48	55	62	82	98	118	164	196	200	200
	90W	5GU		18	28	34	43	51	71	85	96	125	150	178	200	200	200	200
	120W	5GU		24	40	48	58	65	94	108	130	180	200	200	200	200	200	200
	150W	5GU		27	46	55	65	72	105	118	148	200	200	200	200	200	200	200
	180W	5GU		30	51	61	72	79	113	127	155	200	200	200	200	200	200	200

Gear Reduction Ratio				100	120	150	180	200	240	300	(360)	(500)	(750)	(1000)	(1200)	(1500)	(1800)	(2400)
Gearbox Output Speed (RPM)				13.5	11.3	9	7.5	6.7	5.6	4.5	(3.75)	(2.7)	(1.8)	(1.35)	(1.12)	(0.9)	(0.75)	(0.56)
Rated Power	6W	2GN	Max Output Torque (kgcm)	30	30	30	30	30	30	30	--	--	--	--	--	--	--	--
	15W	3GN		50	50	50	50	50	50	--	--	--	--	--	--	--	--	--
	25W	4GN		80	80	80	80	80	80	80	--	--	--	--	--	--	--	--
	40W	5GN		100	100	100	100	100	100	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)
	60W	5GU		200	200	200	200	200	200	(200)	(200)	(200)	(200)	(200)	(200)	(200)	(200)	(200)
	90W	5GU		200	200	200	200	200	200	(200)	(200)	(200)	(200)	(200)	(200)	(200)	(200)	(200)
	120W	5GU		200	200	200	200	200	200	(200)	(200)	(200)	(200)	(200)	(200)	(200)	(200)	(200)
	150W	5GU		200	200	200	200	200	200	(200)	(200)	(200)	(200)	(200)	(200)	(200)	(200)	(200)
	180W	5GU		200	200	200	200	200	200	(200)	(200)	(200)	(200)	(200)	(200)	(200)	(200)	(200)

( ) For Parallel Shaft Gear Head, Gear Reduction Ratio 360 ~ 2400 can be achieved by adding Decimal Gear Reducer (5GN10X or 5GU10X).

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

COMPACT GEAR MOTOR

K SERIES

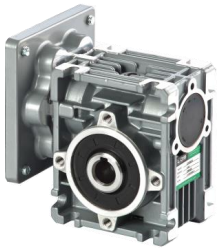
PRODUCT CODING SYSTEM
COMPACT GEAR REDUCER

Parallel Shaft Gearhead
Square Gearbox Type
Gear Reduction Ratio 3~300
For Motor Power 6W ~ 180W
(Part No: 2GN_K, 3GN_K,
4GN_K, 5GN_K, 5GU_KB)

Parallel Shaft Gearhead
Hinge Type Gearbox
(a.k.a Flange Type Gearbox)
Gear Reduction Ratio 3~240
For Motor Power 60W ~ 180W
(Part No: 5GU_K)

Decimal Gear (use with Gearhead)
Gear Reduction Ratio mutiply by 10x
For Motor Power 40W ~ 180W
(Part No: 5GN10X, 5GU10X)

Spiral Bevel Gearhead
Right Angle Hollow Shaft Type
Gear Reduction Ratio
9~ 225 (370 ~ 2250)
For Motor Power 40W ~ 180W
(Part No: 5GN_RH / 5GU_RH)



Worm Gearhead
Right Angle Hollow Shaft Type
Gear Reduction Ratio
5~ 80 (100 ~ 14400)
For Motor Power 40W ~ 180W
(DMRV#30, DMRS#30, 8MRV#30,
DMRV#40, DMRS#40, 8MRV#40)

5 - GU - 225 - RH - VS

Spiral Bevel Gear Reducer Model
5 : 90mm Sq. (3.54")

Gearhead Type
GN : For helical gear motor 40W
GU : For helical gear motor 60W-180W

Gear Reduction Ratio
1/9 ~ 1/225

Output Shaft Type
RH : Hollow Shaft
RS : Solid Output Shaft

Option
[ ] : Normal Oil Seal
VS : Viton Oil Seal

* Compact Hypoid Bevel Gear Reducer is applicable for Compact Gear Motor 40W ~ 180W only.

Permissible Output Torque
Compact Bevel Gear Reducer Ratio and Output Torque (Based on 4Pole Motor, 50Hz)

Gear Reduction Ratio			9	15	18	22	37	45	54	75	90	108	150	180	225
Gearbox Output Speed (RPM)			150	90	75	61	36	30	25	18	15	12.5	9	7.5	6
Rated Power	40W	Max Output Torque (kgcm)	22	37	44	54	90	110	132	150	208	220	220	220	220
	60W		34	57	68	83	140	170	204	220	220	220	220	220	220
	90W		51	85	102	125	210	220	220	220	220	220	220	220	220
	120W		65	108	130	159	220	220	220	220	220	220	220	220	220
	150W		72	120	144	176	220	220	220	220	220	220	220	220	220
	180W		79	132	158	193	220	220	220	220	220	220	220	220	220

Gear Reduction Ratio			(370)	(450)	(540)	(750)	(900)	(1080)	(1500)	(1800)	(2250)
Gearbox Output Speed (RPM)			3.6	3	2.5	1.8	1.5	1.25	0.9	0.75	0.6
Rated Power	40W	Max Output Torque (kgcm)	220	220	220	220	220	220	220	220	220
	60W		220	220	220	220	220	220	220	220	220
	90W		220	220	220	220	220	220	220	220	220
	120W		220	220	220	220	220	220	220	220	220
	150W		220	220	220	220	220	220	220	220	220
	180W		220	220	220	220	220	220	220	220	220

( ) For Hypoid Bevel Gear Head, Gear Reduction Ratio 370 ~ 2250 can be achieved by adding Decimal Gear Reducer (5GN10X or 5GU10X).

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

COMPACT GEAR MOTOR

K SERIES

PRODUCT CODING SYSTEM
COMPACT GEAR REDUCER

DMRV - #30 - [ ] - 30 - CM09

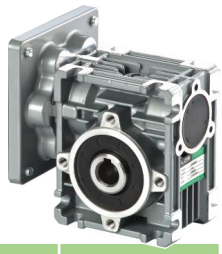
Aluminium Worm Gear Reducer Model
DMRV
DMRS
8MRV

Series
#30
#40

Output Shaft Option
[ ] : Hollow Output Shaft
L : Single Shaft – Left
R : Single Shaft - Right
T : Double Shaft

Ratio
1/5 ~ 1/80
(1/100 ~ 1/7200)

Input Flange Design
CM09 : Ratio 1/5 ~ 1/80
CG09 : Ratio 1/100 ~ 1/7200



* Aluminium Worm Gear Reducer is applicable for Compact Gear Motor 40W ~ 180W only.

Permissible Output Torque

#30 Series Worm Gear Reducer Ratio and Output Torque (Based on 4Pole Motor, 50Hz)

Gear Reduction Ratio			5	10	15	20	25	30	40	50	60	(80)	(100)	(150 ~ 7200)
Gearbox Output Speed (RPM)			270	135	90	67	54	45	33	27	23	(17)	(13.5)	(9.0 ~ 0.19)
Rated Power	40W	#30 Max Output Torque (kgcm)	15	28	42	49	60	71	77	99.8	111	(134)	(168)	(210)
	60W		18	34	47	60	70	80	97	110	130	(140)	(210)	
	90W		27	50	71	90	100	120	140	170	180	(210)	(210)	
	120W		36	67	95	120	140	160	170	180	190	(210)	(210)	
	150W		45	83	117	154	174	208	210	210	210	(210)	(210)	
	180W		53	98	140	170	207	210	210	210	210	(210)	(210)	

#40 Series Worm Gear Reducer Ratio and Output Torque (Based on 4Pole Motor, 50Hz)

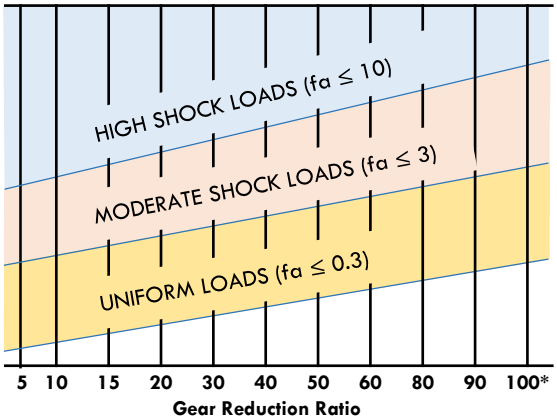
Gear Reduction Ratio			5	10	15	20	25	30	40	50	60	(80)	(100)	(150 ~ 7200)
Gearbox Output Speed (RPM)			270	135	90	67	54	45	33	27	23	(17)	(13.5)	(9.0 ~ 0.19)
Rated Power	40W	#40 Max Output Torque (kgcm)	15	28	42	49	60	71	77	99.8	111	(134)	(168)	(400)
	60W		18	34	47	60	70	80	97	110	130	(140)	(236)	
	90W		27	50	71	90	100	120	140	170	180	(248)	(290)	
	120W		36	67	95	120	140	160	170	180	190	(340)	(400)	
	150W		45	83	117	154	174	208	226	292	326	(398)	(400)	
	180W		53	98	140	170	207	210	268	346	387	(400)	(400)	

( ) For Aluminium Worm Gear Reducer, Gear Reduction Ratio 80 ~ 7,200 can be achieved by adding Parallel Shaft Gear Reducer (5GN_K-N or 5GU_KB-N).

SERVICE FACTOR

24Hr	16Hr	8Hr	2Hr
2.3	2	1.8	1.6
2.2	1.9	1.7	1.5
2.1	1.8	1.6	1.4
2.0	1.7	1.5	1.3
1.9	1.6	1.4	1.2
1.8	1.5	1.3	1.1
1.7	1.4	1.2	1.0
1.6	1.3	1.1	0.9
1.5	1.2	1.0	0.8
SERVICE FACTOR			

Length of daily operating time: hours/day



Model	DMRV#30				DMRV#40		
Ratio	60W	90W	120W	180W	90W	120W	180W
5	10.1	6.7	5.1	3.4	11.2	8.1	5.1
10	5.4	3.6	2.7	1.8	6.2	5.0	3.2
15	3.8	2.5	1.9	1.3	4.2	3.5	2.3
20	3	2	1.5	1	3.4	2.8	2.0
25	3	2	1.5	1	3.4	2.8	1.7
30	2.5	1.7	1.3	0.8	3.0	2.6	1.7
40	1.9	1.2	0.9	-	2.3	1.9	1.3
50	1.5	1	0.8	-	2	1.5	1
60	1.3	0.9	-	-	1.3	1	-
80	0.9	-	-	-	1	0.8	-

Service Factor (s.f.)

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

COMPACT GEAR MOTOR

K SERIES

INDUCTION MOTOR
SINGLE PHASE (1Ø – CAPACITOR RUN)

The most common of all motors is the standard Induction Motor, it's designed for continuous 24/7 operation in one direction. While it is capable of going both forward and reverse, its main role is just single direction use.

General Specifications:

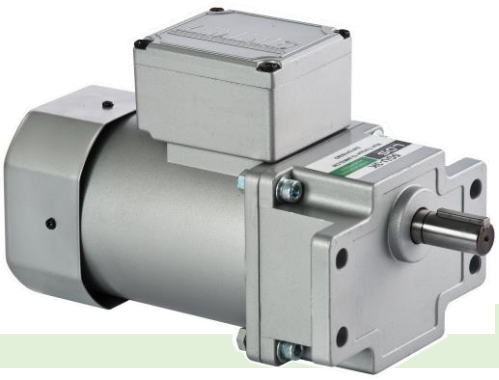
Output Power (Watt)	Product Code		AC Voltage (V)	Frequency (Hz)	Current (A)	Starting Torque (Kg.cm)	Rated		Number of Pole (P)	Capacitor	
	Round Shaft	Helical Shaft (For Gearhead)					Torque (Kg.cm)	RPM		Capacity (μF)	VAC
6W	2IK6A-A	2IK6GN-A	1Ø110	50	0.25	0.44	0.45	1300	4P	2.5	250
				60	0.22	0.42	0.38	1600			
	2IK6A-C2	2IK6GN-C2	1Ø240	50	0.14	0.41	0.45	1300		0.8	450
				60	0.12	0.40	0.38	1600			
15W	3IK15A-A	3IK15GN-A	1Ø110	50	0.38	1.01	1.22	1300	4P	4	250
				60	0.34	0.98	0.98	1600			
	3IK15A-C2	3IK15GN-C2	1Ø240	50	0.2	0.88	1.22	1300		1.2	450
				60	0.18	0.86	0.98	1600			
25W	4IK25A-A	4IK25GN-A	1Ø110	50	0.45	1.3	1.87	1320	4P	6	250
				60	0.43	1.2	1.48	1620			
	4IK25A-C2	4IK25GN-C2	1Ø240	50	0.23	1.45	1.82	1320		1.5	450
				60	0.21	1.42	1.5	1620			
40W	5IK40A-A	5IK40GN-A	1Ø110	50	0.83	2.26	3.0	1350	4P	10	250
				60	0.7	2.16	2.5	1650			
	5IK40A-C2	5IK40GN-C2	1Ø240	50	0.4	2.17	3.4	1350		2.5	450
				60	0.37	2.15	2.84	1650			
60W	5IK60A-AF	5IK60GN-AF	1Ø110	50	1.18	3.35	4.37	1350	4P	16	250
				60	1.1	3.1	4.3	1650			
	5IK60A-C2F	5IK60GN-C2F	1Ø240	50	0.58	3.35	4.37	1350		3.5	450
				60	0.5	3.1	4.3	1650			
90W	5IK90A-AF	5IK90GN-AF	1Ø110	50	1.58	4.5	6.2	1350	4P	20	250
				60	1.43	4.3	5.43	1650			
	5IK90A-C2F	5IK90GN-C2F	1Ø240	50	0.80	4.6	6.2	1350		5.5	450
				60	0.74	4.4	5.43	1650			
120W	5IK120A-AF	5IK120GN-AF	1Ø110	50	1.85	6.7	8.5	1350	4P	25	250
				60	1.60	5.8	7.3	1650			
	5IK120A-C2F	5IK120GN-C2F	1Ø240	50	0.98	6.4	8.5	1350		6	450
				60	0.94	5.7	7.3	1650			
150W	5IK150A-C2F	5IK150GN-C2F	1Ø240	50	1.20	7.0	9.94	1320	4P	7	450
				60	1.12	6.4	8.65	1620			
180W	5IK180A-C2F	5IK180GN-C2F	1Ø240	50	1.30	7.8	11.3	1320	4P	8	450
				60	1.23	7.1	9.25	1620			

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.
Single Phase 220V/230V Available upon request.

COMPACT GEAR MOTOR

K SERIES

INDUCTION MOTOR
THREE PHASE (3Ø)



The most common of all motors is the standard Induction Motor, it's designed for continuous 24/7 operation in one direction. While it is capable of going both forward and reverse, its main role is just single direction use.

General Specifications:

Output Power (Watt)	Product Code		AC Voltage (V)	Frequency (Hz)	Current (A)	Starting Torque (Kg.cm)	Rated		Number of Pole (P)
	Round Shaft	Helical Shaft (For Gearhead)					Torque (Kg.cm)	RPM	
25W	4IK25A-S	4IK25GN-S	3Ø220	50	0.23	3.0	2.06	1320	4P
				60	0.21	2.6	1.63	1620	
	4IK25A-S4	4IK25GN-S4	3Ø415	50	0.14	2.6	1.75	1320	
				60	0.13	2.0	1.46	1620	
40W	5IK40A-S	5IK40GN-S	3Ø220	50	0.36	4.7	3.17	1350	4P
				60	0.33	4.2	2.8	1650	
	5IK40A-S4	5IK40GN-S4	3Ø415	50	0.21	4.5	3.0	1350	
				60	0.19	4.3	2.9	1650	
60W	5IK60A-SF	5IK60GN-SF	3Ø220	50	0.5	7.4	4.9	1350	4P
				60	0.45	6.4	4.0	1650	
	5IK60A-S4F	5IK60GN-S4F	3Ø415	50	0.27	7.2	4.85	1350	
				60	0.25	6.2	3.88	1650	
90W	5IK90A-SF	5IK90GN-SF	3Ø220	50	0.65	9.7	6.5	1350	4P
				60	0.60	8.4	5.3	1650	
	5IK90A-S4F	5IK90GN-S4F	3Ø415	50	0.37	9.7	6.5	1350	
				60	0.34	8.4	5.3	1650	
120W	5IK120A-SF	5IK120GN-SF	3Ø220	50	0.75	11.5	8.95	1350	4P
				60	0.72	9.5	7.5	1650	
	5IK120A-S4F	5IK120GN-S4F	3Ø415	50	0.43	11.5	8.95	1350	
				60	0.39	9.5	7.5	1650	
150W	5IK150A-SF	5IK150GN-SF	3Ø220	50	0.95	12.8	10.7	1320	4P
				60	0.88	10.2	9.5	1620	
	5IK150A-S4F	5IK150GN-S4F	3Ø415	50	0.50	12.8	10.5	1320	
				60	0.46	10.2	9.3	1620	
180W	5IK180A-SF	5IK180GN-SF	3Ø220	50	1.10	13.4	12.3	1320	4P
				60	1.05	10.8	10.1	1620	
	5IK180A-S4F	5IK180GN-S4F	3Ø415	50	0.64	13.4	12.3	1320	
				60	0.60	10.8	10.1	1620	

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.
Single Phase 220V/230V, Dual-voltage motor 3ph220V/380V and 3ph240V/415V available upon request.
Voltage "U" represents Dual-voltage 220V/380V; and "TQ" represents Dual-voltage 240V/415V.

COMPACT GEAR MOTOR

K SERIES

INDUCTION MOTOR - 2POLE
SINGLE PHASE (1Ø) / THREE PHASE (3Ø)

General Specifications (Single Phase Motor - 1Ø) :

Output Power (Watt)	Product Code	AC Voltage (V)	Frequency (Hz)	Current (A)	Starting Torque (Kg.cm)	Rated		Number of Pole (P)	Capacitor	
	Round Shaft					Torque (Kg.cm)	RPM		Capacity (μF)	VAC
60W	5IK60A-A2F-2P	1Ø110	50	0.95	1.8	2.0	2780	2P	16	250
			60	0.90	1.8	1.8	3220			
	5IK60A-C2F-2P	1Ø240	50	0.48	1.8	2.0	2780		3.5	450
			60	0.46	1.8	1.8	3220			
90W	5IK90A-A2F-2P	1Ø110	50	1.6	3	3.6	2780	2P	20	250
			60	1.6	3	3.2	3220			
	5IK90A-C2F-2P	1Ø240	50	0.82	3	3.6	2780		5.5	450
			60	0.78	3	3.2	3220			
120W	5IK120A-A2F-2P	1Ø110	50	2.0	4.2	5.0	2780	2P	25	250
			60	2.0	4.2	4.3	3220			
	5IK120A-C2F-2P	1Ø240	50	1.0	4.2	5.0	2780		6	450
			60	0.93	4.2	4.3	3220			
150W	5IK150A-SF-2P	1Ø240	50	1.2	5.3	6.1	2720	2P	7	450
			60	1.1	5.3	5.4	3160			
180W	5IK180A-C2F-2P	1Ø240	50	1.3	6.5	6.8	2720	2P	8	450
			60	1.2	6.5	6.0	3160			

General Specifications (Three Phase Motor - 3Ø) :

Output Power (Watt)	Product Code	AC Voltage (V)	Frequency (Hz)	Current (A)	Starting Torque (Kg.cm)	Rated		Number of Pole (P)
	Round Shaft					Torque (Kg.cm)	RPM	
60W	5IK60A-SF-2P	3Ø220	50	0.32	9.6	2	2780	2P
			60	0.31	9.0	1.7	3220	
	5IK60A-S4F-2P	3Ø415	50	0.18	9.6	2	2780	
			60	0.17	9.0	1.7	3220	
90W	5IK90A-SF-2P	3Ø220	50	0.70	16	3.6	2780	2P
			60	0.65	12	3.2	3220	
	5IK90A-S4F-2P	3Ø415	50	0.4	16	3.6	2780	
			60	0.37	12	3.2	3220	
120W	5IK120A-SF-2P	3Ø220	50	1.0	20	4.4	2780	2P
			60	0.94	16	4.1	3220	
	5IK120A-S4F-2P	3Ø415	50	0.59	20	4.4	2780	
			60	0.55	16	4.1	3220	
150W	5IK150A-SF-2P	3Ø220	50	1.3	23	5	2720	2P
			60	1.2	18	4.2	3160	
	5IK150A-S4F-2P	3Ø415	50	0.7	23	5	2720	
			60	0.64	18	4.2	3160	
180W	5IK180A-SF-2P	3Ø220	50	1.5	25	5.5	2720	2P
			60	1.3	21	4.9	3160	
	5IK180A-S4F-2P	3Ø415	50	0.8	25	5.5	2720	
			60	0.7	21	4.9	3160	

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.
Single Phase 220V/230V, Dual-voltage motor 3ph220V/380V and 3ph240V/415V available upon request.
Voltage "U" represents Dual-voltage 220V/380V; and "TQ" represents Dual-voltage 240V/415V.

COMPACT GEAR MOTOR

K SERIES

REVERSIBLE MOTOR - RATED 30MIN
SINGLE PHASE (1Ø)

The Reversible Motor is designed for start/stop operations with changes of direction frequently. It is rated at 30 minutes while used in this fashion. It uses a simple damping brake to slow the motor quickly to be able to change direction efficiently. This generates heat when the motor is frequently changing direction which is why all reversible motors are rated for 30 minutes only. (But when large stored torque is required, model with electromagnetic brake should be used).

General Specifications:

Output Power (Watt)	Product Code		AC Voltage (V)	Frequency (Hz)	Current (A)	Starting Torque (Kg.cm)	Rated		Number of Pole (P)	Capacitor	
	Round Shaft	Helical Shaft (For Gearhead)					Torque (Kg.cm)	RPM		Capacity (μF)	VAC
6W	2RK6A-A	2RK6GN-A	1Ø110	50	0.28	0.46	0.53	1300	4P	4	250
				60	0.24	0.44	0.4	1600			
	2RK6A-C	2RK6GN-C2	1Ø240	50	0.15	0.43	0.47	1300		1.2	450
				60	0.13	0.42	0.4	1600			
15W	3RK15A-A	3RK15GN-A	1Ø110	50	0.42	1.06	1.28	1300	4P	6	250
				60	0.37	1.03	1.03	1600			
	3RK15A-C2	3RK15GN-C2	1Ø240	50	0.22	0.92	1.28	1300		1.5	450
				60	0.2	0.9	1.03	1600			
25W	4RK25A-A	4RK25GN-A	1Ø110	50	0.5	1.37	1.96	1320	4P	8	250
				60	0.47	1.26	1.55	1620			
	4RK25A-C2	4RK25GN-C2	1Ø240	50	0.25	1.52	1.91	1320		2	450
				60	0.23	1.49	1.58	1620			
40W	5RK40A-A	5RK40GN-A	1Ø110	50	0.91	2.37	3.15	1350	4P	14	250
				60	0.77	2.27	2.63	1650			
	5RK40A-C2	5RK40GN-C2	1Ø240	50	0.44	2.28	3.57	1350		3	450
				60	0.41	2.26	2.98	1650			
60W	5RK60A-AF	5RK60GN-AF	1Ø110	50	1.3	3.52	4.59	1350	4P	20	250
				60	1.21	3.26	4.52	1650			
	5RK60A-C2F	5RK60GN-C2F	1Ø240	50	0.64	3.52	4.59	1350		4	450
				60	0.55	3.26	4.52	1650			
90W	5RK90A-AF	5RK90GN-AF	1Ø110	50	1.74	4.73	6.51	1350	4P	24	250
				60	1.57	4.73	5.7	1650			
	5RK90A-C2F	5RK90GN-C2F	1Ø240	50	0.88	4.73	6.51	1350		6	450
				60	0.81	4.73	5.7	1650			
120W	5RK120A-AF	5RK120GN-AF	1Ø110	50	2.04	7.04	8.93	1350	4P	30	250
				60	1.76	6.09	7.67	1650			
	5RK120A-C2F	5RK120GN-C2F	1Ø240	50	1.01	6.72	8.93	1350		7	450
				60	0.94	5.97	7.67	1650			
150W	5RK120A-C2F	5RK120GN-C2F	1Ø240	50	1.30	7.8	9.94	1320	4P	8	450
				60	1.21	7.2	8.85	1620			

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.
Single Phase 220V/230V available upon request.

COMPACT GEAR MOTOR

K SERIES

ELECTROMAGNETIC BRAKE MOTOR
SINGLE PHASE (1Ø – CAPACITOR RUN)
POWER-OFF ACTIVATED TYPE

Electromagnetic Brake motor is ideal for vertical application in which the load must be held. It's a load-holding brake motor with a power off activated type electromagnetic brake, where the motor stops instantaneously when the power is cut off, while still holding the load in position (optimal solution for emergency brakes and vertical load applications).

General Specifications:

Output Power (Watt)	Product Code		AC Voltage (V)	Frequency (Hz)	Current (A)	Starting Torque (Kg.cm)	Rated		Number of Pole (P)	Capacitor	
	Round Shaft	Helical Shaft (For Gearhead)					Torque (Kg.cm)	RPM		Capacity (µF)	VAC
6W	2IK6A-AB	2IK6GN-AB	1Ø110	50	0.25	0.44	0.45	1300	4P	2.5	250
				60	0.22	0.42	0.38	1600			
	2IK6A-C2B	2IK6GN-C2B	1Ø240	50	0.14	0.41	0.45	1300		0.8	450
				60	0.12	0.4	0.38	1600			
15W	3IK15A-AB	3IK15GN-AB	1Ø110	50	0.38	1.01	1.22	1300	4P	4	250
				60	0.34	0.98	0.98	1600			
	3IK15A-C2B	3IK15GN-C2B	1Ø240	50	0.2	0.88	1.22	1300		1.2	450
				60	0.18	0.86	0.98	1600			
25W	4IK25A-AB	4IK25GN-AB	1Ø110	50	0.45	1.3	1.87	1320	4P	6	250
				60	0.43	1.2	1.48	1620			
	4IK25A-C2B	4IK25GN-C2B	1Ø240	50	0.23	1.45	1.82	1320		1.5	450
				60	0.21	1.42	1.5	1620			
40W	5IK40A-AB	5IK40GN-AB	1Ø110	50	0.83	2.26	3.0	1350	4P	10	250
				60	0.7	2.16	2.5	1650			
	5IK40A-C2B	5IK40GN-C2B	1Ø240	50	0.4	2.17	3.4	1350		2.5	450
				60	0.37	2.15	2.84	1650			
60W	5IK60A-AFB	5IK60GN-AFB	1Ø110	50	1.18	3.35	4.37	1350	4P	16	250
				60	1.1	3.1	4.3	1650			
	5IK60A-C2FB	5IK60GN-C2FB	1Ø240	50	0.58	3.35	4.37	1350		3.5	450
				60	0.5	3.1	4.3	1650			
90W	5IK90A-AFB	5IK90GN-AFB	1Ø110	50	1.58	4.5	6.2	1350	4P	20	250
				60	1.43	4.5	5.43	1650			
	5IK90A-C2FB	5IK90GN-C2FB	1Ø240	50	0.80	4.5	6.2	1350		5.5	450
				60	0.74	4.5	5.43	1650			
120W	5IK120A-AFB	5IK120GN-AFB	1Ø110	50	1.85	6.7	8.5	1350	4P	25	250
				60	1.60	5.8	7.3	1650			
	5IK120A-C2FB	5IK120GN-C2FB	1Ø240	50	0.98	6.4	8.5	1350		6	450
				60	0.94	5.7	7.3	1650			
150W	5IK150A-C2FB	5IK150GN-C2FB	1Ø240	50	1.20	7.0	9.94	1320	4P	7	450
				60	1.12	6.4	8.65	1620			
180W	5IK180A-C2FB	5IK180GN-C2FB	1Ø240	50	1.30	7.8	11.3	1320	4P	8	450
				60	1.23	7.1	9.25	1620			

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.
Single Phase 220V/230V Available upon request.

COMPACT GEAR MOTOR

K SERIES

ELECTROMAGNETIC BRAKE MOTOR
THREE PHASE (3Ø)
POWER-OFF ACTIVATED TYPE

Features:

- DC Electromagnetic Brake with built in Rectifier (Input voltage AC220V)
- Brake Precision – The electromagnetic brake controls the rotation within 2-3 turns, making it suitable for forward/reverse operation
- Ideal for low frequency of braking operation (Maximum 6 cycles of start/stop per minute)
- Variable Speed Brake Motor and Asynchronous Brake Motor configurations available.

Electromagnetic Brake	Motor Rating	
	6W-25W	40W-180W
Static friction torque (kgcm)	5.1	10.2
Rated voltage (DC-V)	24	24
Input voltage (Rectifier)	220V	220V
Capacity (Watt)	4W	7W
Movement (Start/Stop Operation)	Max: 6 cycles per minute with a 1-2 second pause period	

General Specifications:

Output Power (Watt)	Product Code		AC Voltage (V)	Frequency (Hz)	Current (A)	Starting Torque (Kg.cm)	Rated		Number of Pole (P)
	Round Shaft	Helical Shaft (For Gearhead)					Torque (Kg.cm)	RPM	
25W	4IK25A-SB	4IK25GN-SB	3Ø220	50	0.23	3.0	2.06	1320	4P
				60	0.21	2.6	1.63	1620	
	4IK25A-S4B	4IK25GN-S4B	3Ø415	50	0.14	2.6	1.75	1320	
				60	0.13	2.0	1.46	1620	
40W	5IK40A-SB	5IK40GN-SB	3Ø220	50	0.36	4.7	3.17	1350	4P
				60	0.33	4.2	2.8	1650	
	5IK40A-S4B	5IK40GN-S4B	3Ø415	50	0.21	4.5	3.0	1350	
				60	0.19	4.3	2.9	1650	
60W	5IK60A-SFB	5IK60GN-SFB	3Ø220	50	0.5	7.4	4.9	1350	4P
				60	0.45	6.4	4.0	1650	
	5IK60A-S4FB	5IK60GN-S4FB	3Ø415	50	0.27	7.2	4.85	1350	
				60	0.25	6.2	3.88	1650	
90W	5IK90A-SFB	5IK90GN-SFB	3Ø220	50	0.65	9.7	6.5	1350	4P
				60	0.60	8.4	5.3	1650	
	5IK90A-S4FB	5IK90GN-S4FB	3Ø415	50	0.37	9.7	6.5	1350	
				60	0.34	8.4	5.3	1650	
120W	5IK120A-SFB	5IK120GN-SFB	3Ø220	50	0.75	11.5	8.95	1350	4P
				60	0.72	9.5	7.5	1650	
	5IK120A-S4FB	5IK120GN-S4FB	3Ø415	50	0.43	11.5	8.95	1350	
				60	0.39	9.5	7.5	1650	
150W	5IK150A-SFB	5IK150GN-SFB	3Ø220	50	0.95	12.8	10.7	1320	4P
				60	0.88	10.2	9.5	1620	
	5IK150A-S4FB	5IK150GN-S4FB	3Ø415	50	0.50	12.8	10.5	1320	
				60	0.46	10.2	9.3	1620	
180W	5IK180A-SFB	5IK180GN-SFB	3Ø220	50	1.10	13.4	12.3	1320	4P
				60	1.05	10.8	10.1	1620	
	5IK180A-S4FB	5IK180GN-S4FB	3Ø415	50	0.64	13.4	12.3	1320	
				60	0.60	10.8	10.1	1620	

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.
Dual-voltage motor 3ph220V/380V and 3ph240V/415V available upon request.
Voltage "U" represents Dual-voltage 220V/380V; and "TQ" represents Dual-voltage 240V/415V.

COMPACT GEAR MOTOR

K SERIES

REVERSIBLE ELECTROMAGNETIC BRAKE MOTOR
SINGLE PHASE (1Ø – CAPACITOR RUN)
POWER-OFF ACTIVATED TYPE

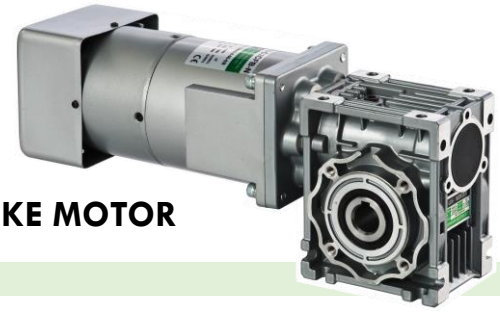
The Reversible Electromagnetic Brake Motor is designed for start/stop operations with changes of direction frequently. It uses a simple damping brake in addition to the electromagnetic brake to slow the motor more quickly to be able to change direction efficiently. This generates heat when the motor is frequently changing direction which is why all reversible electromagnetic brake motors are rated for 30 minutes only.

General Specifications:

Output Power (Watt)	Product Code		AC Voltage (V)	Frequency (Hz)	Current (A)	Starting Torque (Kg.cm)	Rated		Number of Pole (P)	Capacitor	
	Round Shaft	Helical Shaft (For Gearhead)					Torque (Kg.cm)	RPM		Capacity (µF)	VAC
6W	2RK6A-AB	2RK6GN-AB	1Ø110	50	0.28	0.46	0.53	1300	4P	4	250
				60	0.24	0.44	0.40	1600			
	2RK6A-C2	2RK6GN-C2B	1Ø240	50	0.15	0.43	0.47	1300		1.2	450
				60	0.13	0.42	0.40	1600			
15W	3RK15A-AB	3RK15GN-AB	1Ø110	50	0.42	1.06	1.28	1300	4P	6	250
				60	0.37	1.03	1.03	1600			
	3RK15A-C2B	3RK15GN-C2B	1Ø240	50	0.22	0.92	1.28	1300		1.5	450
				60	0.2	0.9	1.03	1600			
25W	4RK25A-AB	4RK25GN-AB	1Ø110	50	0.5	1.37	1.96	1320	4P	8	250
				60	0.47	1.26	1.55	1620			
	4RK25A-C2B	4RK25GN-C2B	1Ø240	50	0.25	1.52	1.91	1320		2	450
				60	0.23	1.49	1.58	1620			
40W	5RK40A-AB	5RK40GN-AB	1Ø110	50	0.91	2.37	3.15	1350	4P	14	250
				60	0.77	2.27	2.63	1650			
	5RK40A-C2B	5RK40GN-C2B	1Ø240	50	0.44	2.28	3.57	1350		3	450
				60	0.41	2.26	2.98	1650			
60W	5RK60A-AFB	5RK60GN-AFB	1Ø110	50	1.30	3.52	4.59	1350	4P	20	250
				60	1.21	3.26	4.52	1650			
	5RK60A-C2FB	5RK60GN-CFB	1Ø240	50	0.64	3.46	4.59	1350		4	450
				60	0.55	3.26	4.52	1650			
90W	5RK90A-AFB	5RK90GN-AFB	1Ø110	50	1.74	4.73	6.51	1350	4P	24	250
				60	1.57	4.73	5.7	1650			
	5RK90A-C2FB	5RK90GN-C2FB	1Ø240	50	0.88	4.73	6.51	1350		6	450
				60	0.81	4.73	5.7	1650			
120W	5RK120A-AFB	5RK120GN-AFB	1Ø110	50	2.04	7.04	8.93	1350	4P	30	250
				60	1.96	6.09	7.67	1650			
	5RK120A-C2FB	5IR120GN-C2FB	1Ø240	50	1.01	6.72	8.93	1350		7	450
				60	0.94	5.99	7.67	1650			
150W	5RK150A-C2FB	5RK150GN-C2FB	1Ø240	50	1.20	7.8	9.94	1320	4P	8	450
				60	1.11	7.2	8.65	1620			

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.
Single Phase 220V/230V Available upon request.

COMPACT GEAR MOTOR



K SERIES

REVERSIBLE ELECTROMAGNETIC BRAKE MOTOR
THREE PHASE (3Ø)
POWER-OFF ACTIVATED TYPE

Features:

- DC Electromagnetic Brake with built in Rectifier (Input voltage AC220V)
- Brake Precision – The electromagnetic brake controls the rotation within 2-3 turns, making it suitable for forward/reverse operation
- Ideal for low frequency of braking operation (Maximum 6 cycles of start/stop per minute)
- Variable Speed Brake Motor and Asynchronous Brake Motor configurations available.

Electromagnetic Brake	Motor Rating	
	6W-25W	40W-180W
Static friction torque (kgcm)	5.1	10.2
Rated voltage (DC-V)	24	24
Input voltage (Rectifier)	220V	220V
Capacity (Watt)	4W	7W
Movement (Start/Stop Operation)	Max: 6 cycles per minute with a 1-2 second pause period	

General Specifications:

Output Power (Watt)	Product Code		AC Voltage (V)	Frequency (Hz)	Current (A)	Starting Torque (Kg.cm)	Rated		Number of Pole (P)
	Round Shaft	Helical Shaft (For Gearhead)					Torque (Kg.cm)	RPM	
25W	4RK25A-SB	4RK25GN-SB	3Ø220	50	0.24	2.82	1.96	1300	4P
				60	0.22	2.44	1.55	1600	
	4RK25A-S4B	4RK25GN-S4B	3Ø415	50	0.15	2.44	1.66	1300	
				60	0.14	1.88	1.39	1600	
40W	5RK40A-SB	5RK40GN-SB	3Ø220	50	0.38	4.42	3.01	1320	4P
				60	0.35	3.95	2.66	1620	
	5RK40A-S4B	5RK40GN-S4B	3Ø415	50	0.22	4.23	2.85	1320	
				60	0.20	4.04	2.76	1620	
60W	5RK60A-SFB	5RK60GN-SFB	3Ø220	50	0.61	6.96	4.66	1350	4P
				60	0.55	6.02	3.80	1650	
	5RK60A-S4FB	5RK60GN-S4FB	3Ø415	50	0.34	6.77	4.61	1350	
				60	0.30	5.83	3.69	1650	
90W	5RK90A-SFB	5RK90GN-SFB	3Ø220	50	0.74	9.12	6.18	1350	4P
				60	0.69	7.90	5.04	1650	
	5RK90A-S4FB	5RK90GN-S4FB	3Ø415	50	0.46	9.12	6.18	1350	
				60	0.39	7.90	5.04	1650	
120W	5RK120A-SFB	5RK120GN-SFB	3Ø220	50	0.99	10.81	8.50	1320	4P
				60	0.91	8.93	7.13	1620	
	5RK120A-S4FB	5RK120GN-S4FB	3Ø415	50	0.51	10.81	8.50	1320	
				60	0.44	8.93	7.13	1620	
150W	5RK150A-S4FB	5RK150GN-S4FB	3Ø415	50	0.61	12.03	9.98	1320	4P
				60	0.55	9.59	8.84	1620	
180W	5RK180A-S4FB	5RK180GN-S4FB	3Ø415	50	0.67	12.60	11.7	1300	4P
				60	0.63	10.15	9.60	1600	

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.
Single Phase 220V/230V, Dual-voltage motor 3ph220V/380V and 3ph240V/415V available upon request.
Voltage "U" represents Dual-voltage 220V/380V; and "TQ" represents Dual-voltage 240V/415V.

COMPACT GEAR MOTOR

K SERIES

CLUTCH & BRAKE MOTOR
SINGLE PHASE (1Ø – CAPACITOR RUN)
FREQUENT START-STOP OPERATION

The DC 24V Clutch and Brake motor use a high precision, highly responsive clutch & brake for frequent start/stop operation. When the brake is in use, the clutch will separate the link from the brake, so there are no overruns, making positioning precise and accurate.

Clutch & Brake Models	GN –CB Type		GU-CB Type	
	Brake	Clutch	Brake	Clutch
Static friction torque (kg.cm)	25	20	35	30
Rated voltage (DC-V)	24	24	24	24
Capacity (Watt)	5	6	5.76	6.72
Movement (Start/Stop Operation)	Max: 60-80 cycle per minute*			

General Specifications:

Output Power (Watt)	Product Code	AC Voltage (V)	Frequency (Hz)	Current (A)	Starting Torque (Kg.cm)	Rated		Number of Pole (P)	Capacitor	
	Helical Shaft (For Gearhead)					Torque (Kg.cm)	RPM		Capacity (µF)	VAC
40W	5IK40GB-A	1Ø110	50	0.83	2.26	3.0	1350	4P	10	250
			60	0.7	2.16	2.5	1650			
	5IK40GB-C2	1Ø240	50	0.4	2.17	3.4	1350		2.5	450
			60	0.37	2.15	2.84	1650			
60W	5IK60GB-AF	1Ø110	50	1.18	3.35	4.37	1350	4P	16	250
			60	1.1	3.1	4.3	1650			
	5IK60GB-C2F	1Ø240	50	0.58	3.35	4.37	1350		3.5	450
			60	0.5	3.1	4.3	1650			
90W	5IK90GB-AF	1Ø110	50	1.58	4.5	6.2	1350	4P	20	250
			60	1.43	4.3	5.43	1650			
	5IK90GB-C2F	1Ø240	50	0.80	4.6	6.2	1350		5.5	450
			60	0.74	4.4	5.43	1650			
120W	5IK120GB-AF	1Ø110	50	1.85	6.7	8.5	1350	4P	25	250
			60	1.60	5.8	7.3	1650			
	5IK120GB-C2F	1Ø240	50	0.98	6.4	8.5	1350		6	450
			60	0.94	5.7	7.3	1650			
150W	5IK150GB-C2F	1Ø240	50	1.20	7.0	9.94	1320	4P	7	450
			60	1.12	6.4	8.65	1620			
180W	5IK180GB-C2F	1Ø240	50	1.30	7.8	11.3	1320	4P	8	450
			60	1.23	7.1	9.25	1620			

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.
Single Phase 220V/230V Available upon request.

COMPACT GEAR MOTOR

K SERIES

CLUTCH & BRAKE MOTOR
THREE PHASE (3Ø)
FREQUENT START-STOP OPERATION

Features:
- Variable Speed Clutch and Brake Motor and Asynchronous Clutch and Brake Motor configurations available.

Clutch & Brake Models	GN –CB Type		GU-CB Type	
	Brake	Clutch	Brake	Clutch
Static friction torque (kg.cm)	25	20	35	30
Rated voltage (DC-V)	24	24	24	24
Capacity (Watt)	5	6	5.76	6.72
Movement (Start/Stop Operation)	Max: 60-80 cycles per minute*			

General Specifications:

Output Power (Watt)	Product Code	AC Voltage (V)	Frequency (Hz)	Current (A)	Starting Torque (Kg.cm)	Rated		Number of Pole (P)
	Helical Shaft (For Gearhead)					Torque (Kg.cm)	RPM	
40W	5IK40GB-S	3Ø220	50	0.36	4.7	3.17	1350	4P
			60	0.33	4.2	2.8	1650	
	5IK40GB-S4	3Ø415	50	0.21	4.5	3.0	1350	
			60	0.19	4.3	2.9	1650	
60W	5IK60GB-SF	3Ø220	50	0.5	7.4	4.9	1350	4P
			60	0.45	6.4	4.0	1650	
	5IK60GB-S4F	3Ø415	50	0.27	7.2	4.85	1350	
			60	0.25	6.2	3.88	1650	
90W	5IK90GB-SF	3Ø220	50	0.65	9.7	6.5	1350	4P
			60	0.60	8.4	5.3	1650	
	5IK90GB-S4F	3Ø415	50	0.37	9.7	6.5	1350	
			60	0.34	8.4	5.3	1650	
120W	5IK120GB-SF	3Ø220	50	0.75	11.5	8.95	1350	4P
			60	0.72	9.5	7.5	1650	
	5IK120GB-S4F	3Ø415	50	0.43	11.5	8.95	1350	
			60	0.39	9.5	7.5	1650	
150W	5IK150GB-SF	3Ø220	50	0.95	12.8	10.7	1320	4P
			60	0.88	10.2	9.5	1620	
	5IK150GB-S4F	3Ø415	50	0.50	12.8	10.5	1320	
			60	0.46	10.2	9.3	1620	
180W	5IK180GB-SF	3Ø220	50	1.10	13.4	12.3	1320	4P
			60	1.05	10.8	10.1	1620	
	5IK180GB-S4F	3Ø415	50	0.64	13.4	12.3	1320	
			60	0.60	10.8	10.1	1620	

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.
Dual-voltage motor 3ph220V/380V and 3ph240V/415V available upon request.
Voltage "U" represents Dual-voltage 220V/380V; and "TQ" represents Dual-voltage 240V/415V.

COMPACT GEAR MOTOR

K SERIES

VARIABLE SPEED MOTOR WITH ANALOGUE TYPE SPEED CONTROLLER – SINGLE PHASE

Variable Speed Motor uses an Induction Motor with a modular tacho-generator fitted to the rear of the motor. The tacho-generator is made of a magnet connected directly to the motor shaft and a stator coil that detects the magnetic poles, and generates an AC voltage at 12 cycles per revolution. The motor can run in either forward or reverse directions. It has independent powerful cooling fan to cool down motor in order to achieve longer lifespan.

General Specifications:

Output Power (Watt)	Product Code		AC Voltage (V)	Frequency (Hz)	Current (A)	Number of Pole (P)	Rated Speed (rpm)	Permissible Torque		Starting Torque (Kg.cm)	Capacitor	
	Round Shaft	Helical Shaft						1200rpm	90rpm		Capacitor (μF)	VAC
6W	2IK6RA-A2	2IK6RGN-A2	1Ø110	50 60	0.25	4P	90 ~ 1300 90 ~ 1600	0.46	0.25	0.33	2.5	250
	2IK6RA-C2	2IK6RGN-C2	1Ø240	50 60	0.13		90 ~ 1300 90 ~ 1600			0.33	0.8	450
15W	3IK15RA-A2	3IK15RGN-A2	1Ø110	50 60	0.38	4P	90 ~ 1300 90 ~ 1600	1.22	0.42	0.55	4.0	250
	3IK15RA-C2	3IK15RGN-C2	1Ø240	50 60	0.19		90 ~ 1300 90 ~ 1600			0.55	1.2	450
25W	4IK25RA-A2	4IK25RGN-A2	1Ø110	50 60	0.43	4P	90 ~ 1320 90 ~ 1620	1.76 1.40	0.45 0.45	1.20	6.0	250
	4IK25RA-C2	4IK25RGN-C2	1Ø240	50 60	0.2		90 ~ 1320 90 ~ 1620	1.76 1.40	0.45 0.45	1.20	1.5	450
40W	5IK40RA-A2	5IK40RGN-A2	1Ø110	50 60	0.8	4P	90 ~ 1350 90 ~ 1650	2.80 2.20	0.55 0.55	1.90	10	250
	5IK40RA-C2	5IK40RGN-C2	1Ø240	50 60	0.4		90 ~ 1350 90 ~ 1650	2.80 2.20	0.55 0.55	1.90	2.5	450
60W	5IK60RA-A2F	5IK60RGN-A2F	1Ø110	50 60	1.2	4P	90 ~ 1350 90 ~ 1650	5.00 4.20	0.70 0.70	3.00	16	250
	5IK60RA-C2F	5IK60RGN-C2F	1Ø240	50 60	0.6		90 ~ 1350 90 ~ 1650	5.00 4.20	0.70 0.70	3.00	3.5	450
90W	5IK90RA-A2F	5IK90RGN-A2F	1Ø110	50 60	1.58	4P	90 ~ 1350 90 ~ 1650	6.60 5.30	0.86 0.86	4.50	20	250
	5IK90RA-C2F	5IK90RGN-C2F	1Ø240	50 60	0.8		90 ~ 1350 90 ~ 1650	6.60 5.30	0.86 0.86	4.50	5.5	450
120W	5IK120RA-A2F	5IK120RGN-A2F	1Ø110	50 60	2.1	4P	90 ~ 1350 90 ~ 1650	7.50 6.50	0.97 0.97	5.50	25	250
	5IK120RA-C2F	5IK120RGN-C2F	1Ø240	50 60	1.07		90 ~ 1350 90 ~ 1650	8.10 7.40	0.97 0.97	5.50	6.0	450
150W	5IK150RA-C2F	5IK150RGN-C2F	1Ø240	50 60	1.2	4P	90 ~ 1320 90 ~ 1620	9.10 7.85	1.08 1.08	6.40	7.0	450
180W	5IK180RA-C2F	5IK180RGN-C2F	1Ø240	50 60	1.3	4P	90 ~ 1320 90 ~ 1620	11.0 9.2	1.20 1.20	7.20	8.0	450

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.
Single Phase 220V/230V available upon request.

COMPACT GEAR MOTOR

K SERIES

VARIABLE SPEED MOTOR – 2 POLE WITH LED DIGITAL DISPLAY SPEED CONTROLLER – SINGLE PHASE

Variable Speed Motor uses an Induction Motor with a modular tacho-generator fitted to the rear of the motor. The tacho-generator is made of a magnet connected directly to the motor shaft and a stator coil that detects the magnetic poles, and generates an AC voltage at 12 cycles per revolution. The motor can run in either forward or reverse directions. It has independent powerful cooling fan to cool down motor in order to achieve longer lifespan.

General Specifications:

Output Power (Watt)	Product Code	AC Voltage (V)	Frequency (Hz)	Current (A)	Number of Pole (P)	Rated Speed (rpm)	Permissible Torque		Starting Torque (Kg.cm)	Capacitor	
	Round Shaft						2780 rpm	200 rpm		Capacitor (μF)	VAC
60W	5IK60RA-A2F-2P	1Ø110	50	0.95	2P	200 ~ 2780	1.9	0.34	1.7	16.0	250
			60	0.90		200 ~ 3220	1.8	0.34	1.6		
	5IK60RA-C2F-2P	1Ø240	50	0.48		200 ~ 2780	1.9	0.34	1.7	3.5	450
			60	0.46		200 ~ 3220	1.8	0.34	1.6		
90W	5IK90RA-A2F-2P	1Ø110	50	1.6	2P	200 ~ 2780	3.5	0.49	3	20.0	250
			60	1.6		200 ~ 3220	3.1	0.43	3		
	5IK90RA-C2F-2P	1Ø240	50	0.82		200 ~ 2780	3.5	0.49	3	5.5	450
			60	0.78		200 ~ 3220	3.1	0.43	3		
120W	5IK120RA-A2F-2P	1Ø110	50	2.0	2P	200 ~ 2780	4.9	0.67	4.2	25.0	250
			60	2.0		200 ~ 3220	4.3	0.57	4.2		
	5IK120RA-C2F-2P	1Ø240	50	1.0		200 ~ 2780	4.9	0.67	4.2	6.0	450
			60	0.93		200 ~ 3220	4.3	0.57	4.2		
150W	5IK150RA-C2F-2P	1Ø240	50	1.2	2P	200 ~ 2720	6.0	0.78	5.3	7.0	450
			60	1.1		200 ~ 3160	5.3	0.68	5.3		
180W	5IK180RA-C2F-2P	1Ø240	50	1.3	2P	200 ~ 2720	6.7	0.93	5.8	8.0	450
			60	1.2		200 ~ 3160	6.0	0.73	5.8		

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.
Single Phase 220V/230V available upon request.
LDS Variable Speed Motor is design with a built-in automatic thermal protector (optional features). If the motor overheats for any reason (over 100°C), the thermal protector is activated and the motor is stopped. When the motor temperature drops (below 80°C), the thermal protector closes and the motor restarts automatically.

COMPACT GEAR MOTOR

K SERIES

ASYNCHRONOUS MOTOR WITH LED DIGITAL DISPLAY IGBT INVERTER – SINGLE PHASE

Asynchronous Motor a.k.a. Inverter Duty Motor is designed for optimized performance to run with variable frequency drive. It offers longer product lifespan, consistent performance, and less vibration operation.

Features:

- The package include a 3phase motor operated by 1phase IGBT inverter with LED High Brightness Display.
- 150% Overload Protection.
- Wide speed control range from 0-400Hz by operation panel or speed potentiometer.
- Spec-Key button on the panel allows preset of 2 different speeds, forward/reverse operation instantly.
- Acceleration and deceleration control enables soft-start and soft-stop operation.
- Setting of upper and lower speed limits, and counter function.
- Compatible mounting with conventional US Type speed controller.
- Instantaneous reversal, electromagnetic brake, cutch & brake options available.
- Refer to p.47-49 of the catalogue for more information of the IGBT Inverter.

General Specifications (4 Pole Motor):

Output Power (Watt)	Product Code		AC Voltage (V)	Frequency (Hz)	Current (A)	Starting Torque (Kg.cm)	Rated		Number of Pole (P)
	Round Shaft	Helical Shaft					Torque (Kg.cm)	Rated Speed (RPM)	
25W	4IK25VA-S	4IK25VGN-S	3Ø220	50 60	0.23 0.21	3.0 2.6	2.06 1.63	90 ~ 1350 90 ~ 1650	4P
40W	5IK40VA-S	5IK40VGN-S	3Ø220	50 60	0.36 0.33	4.7 4.2	3.17 2.8	90 ~ 1350 90 ~ 1650	4P
60W	5IK60VA-SF	5IK60VGN-SF	3Ø220	50 60	0.5 0.45	7.4 6.4	4.9 4.5	90 ~ 1400 90 ~ 1700	4P
90W	5IK90VA-SF	5IK90VGN-SF	3Ø220	50 60	0.65 0.6	9.7 8.4	6.5 5.3	90 ~ 1400 90 ~ 1700	4P
120W	5IK120VA-SF	5IK120VGN-SF	3Ø220	50 60	0.75 0.72	11.5 9.5	8.95 7.5	90 ~ 1400 90 ~ 1700	4P
150W	5IK150VA-SF	5IK150VGN-SF	3Ø220	50 60	0.95 0.88	12.8 10.2	10.7 9.5	90 ~ 1380 90 ~ 1680	4P
180W	5IK180VA-SF	5IK180VGN-SF	3Ø220	50 60	1.10 1.04	13.4 10.8	12.3 10.1	90 ~ 1350 90 ~ 1750	4P

General Specifications (2 Pole Motor):

Output Power (Watt)	Product Code	AC Voltage (V)	Frequency (Hz)	Current (A)	Starting Torque (Kg.cm)	Rated		Number of Pole (P)
	Round Shaft					Torque (Kg.cm)	Rated Speed (RPM)	
60W	5IK60VA-SF-2P	3Ø220	50 60	0.48 0.43	9.6 9.0	2 1.7	200 ~ 2780 200 ~ 3280	2P
90W	5IK90VA-SF-2P	3Ø220	50 60	0.62 0.58	16 12	3.6 3.2	200 ~ 2780 200 ~ 3280	2P
120W	5IK120VA-SF-2P	3Ø220	50 60	0.72 0.69	20 16	4.4 4.1	200 ~ 2780 200 ~ 3280	2P
150W	5IK150VA-SF-2P	3Ø220	50 60	0.98 0.94	23 18	5 4.2	200 ~ 2720 200 ~ 3160	2P
180W	5IK180VA-SF-2P	3Ø220	50 60	1.17 1.10	25 21	5.5 4.9	200 ~ 2720 200 ~ 3160	2P

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

COMPACT GEAR MOTOR

K SERIES

INVERTER AND SPEED CONTROLLER
SINGLE PHASE (1Ø)

IGBT-K060 Inverter series
IGBT-K100 Inverter series
IGBT-K200 Inverter series

USM71 Controller series
USM72 Controller series

US1000 LED Controller series
US2000 LED Controller series

US61 and US62 Controller series
US71 and US72 Controller series

SD61 Controller series (8pin)
SD62 Controller series (8pin)

SS61 Controller series (8pin)
SS62 Controller series (8pin)

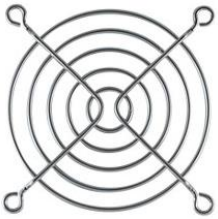
SS31 Brake Pack series (11pin)
SS32 Brake Pack series (11pin)

Model	Description	Input Voltage	Output Voltage	Applicable Motor Capacity
IGBT-K060	Unit Type LED Digital Display IGBT Inverter	1Ø200V -240VAC	3Ø200V-240VAC	25W ~ 60W Asynchronous Motor
IGBT-K100	Unit Type LED Digital Display IGBT Inverter	1Ø200V -240VAC	3Ø200V-240VAC	25W ~ 125W Asynchronous Motor
IGBT-K200	Unit Type LED Digital Display IGBT Inverter	1Ø200V -240VAC	3Ø200V-240VAC	25W ~ 200W Asynchronous Motor
USM71/US61/US71	Unit Type Analogue Speed Controller	1Ø100V -110VAC	1Ø100V -110VAC	6W~120W Variable Speed Motor
USM72/US62/US72	Unit Type Analogue Speed Controller	1Ø200V -240VAC	1Ø200V -240VAC	6W~180W Variable Speed Motor
USM1000	Unit Type LED Digital Display Speed Controller	1Ø100V -110VAC	1Ø100V -110VAC	6W~180W Variable Speed Motor
USM2000	Unit Type LED Digital Display Speed Controller	1Ø200V -240VAC	1Ø200V -240VAC	6W~180W Variable Speed Motor
SD61	Din-rail Type Speed Controller (8pin)	1Ø100V -110VAC	1Ø100V -110VAC	6W~180W Variable Speed Motor
SD62	Din-rail Type Speed Controller (8pin)	1Ø200V -240VAC	1Ø200V -240VAC	6W~180W Variable Speed Motor
SS61	Din-rail Type Speed Controller (8pin)	1Ø100V -110VAC	1Ø100V -110VAC	6W~180W Variable Speed Motor
SS62	Din-rail Type Speed Controller (8pin)	1Ø200V -240VAC	1Ø200V -240VAC	6W~180W Variable Speed Motor
SS31	Din-rail Type Brakepack (11pin)	1Ø100V -110VAC	1Ø100V -110VAC	6W~180W Variable Speed Motor
SS32	Din-rail Type Brakepack (11pin)	1Ø200V -240VAC	1Ø200V -240VAC	6W~180W Variable Speed Motor

COMPACT GEAR MOTOR

K SERIES

ACCESSORIES
COMPREHENSIVE SELECTIONS



Axial AC Powerful Cooling Fan and Fan Guard
Design: MA2082-HVL - Maglev Motor with Vapor Bearing System
Input voltage: 1ph220V ~ 240VAC, 50Hz / 4.6Watts
Air Delivery: 40CFM / Noise Level: Below 32dBA
For Compact Motor 60W ~ 180W

Mounting Bracket (Type-F)
Foot mounting bracket for compact gear motor
40W ~ 180W

Mounting Bracket (Type-H)
* Stainless Steel Made
For Compact IGBT Inverter &
USM Speed Controller

Mounting Bracket (Type-V)
* Stainless Steel Made
For Compact IGBT Inverter &
USM Speed Controller

Mounting Bracket (Type-U)
* Stainless Steel Made
For Compact IGBT Inverter &
USM Speed Controller

Acrylic Protective Cover
Design For IGBT Inverter
Acrylic Made

Extension Cable
for Variable Speed Motor &
Speed Controller, available in
1m ▪ 1.5m ▪ 2m ▪ 3m length

Terminal Box
with cable gland

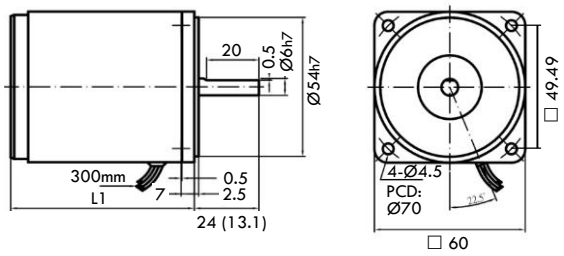
Torque Arm
for Worm Gear Reducer
Option : Nylon Bush

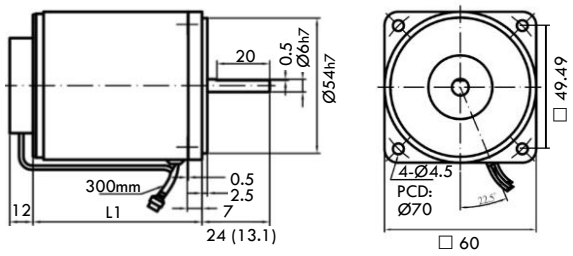
Aluminium Output Flange
for Worm Gear Reducer
#30F • #40F

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

DIMENSION – COMPACT GEAR MOTOR

Power Rating 6W





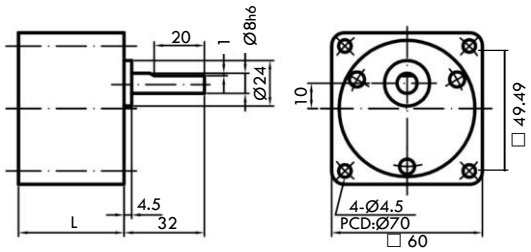
No.	Type of Motor / Product Code	L1
1	Induction Motor 2IK6A-□ (2IK6GN-□)	77
2	Reversible Motor 2RK6A-□ (2RK6GN-□)	78
3	Electromagnetic Brake Motor 2IK6A-□B (2IK6GN-□B)	119
4	Reversible Electromagnetic Brake Motor 2RK6A-□B (2RK6GN-□B)	119

No.	Type of Motor / Product Code	L1
5	Variable Speed Motor 2IK6RA-□ (2IK6RGN-□)	77
6	Reversible Variable Speed Motor 2RK6RA-□ (2RK6RGN-□)	78
7	Variable Speed Electromagnetic Brake Motor 2IK6RA-□B (2IK6RGN-□B)	119

Default Design: Round shaft motor
( ) Helical shaft motor
□ Voltage
(unit: mm)

2GN

Parallel Shaft Gearhead
2GN3K ~ 2GN300K



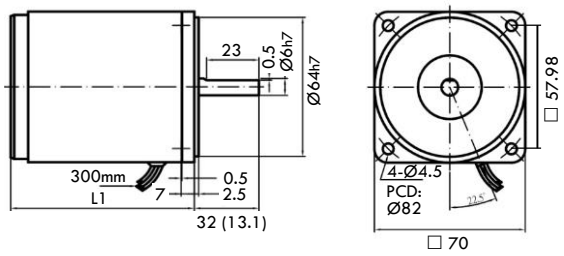
2GN Parallel Shaft Gearhead		
Product Code	Gear Ratio (1/X)	L2
2GN3K ~ 2GN18K	3, 5, 6, 7.5, 9, 12.5, 15, 18	30
2GN25K ~ 2GN75K	25, 30, 36, 50, 60, 75	35
2GN90K ~ 2GN300K	90, 100, 120, 150, 180, 240	41

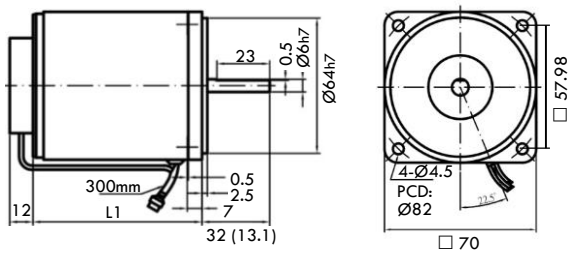
(unit: mm)

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

DIMENSION – COMPACT GEAR MOTOR

Power Rating 15W





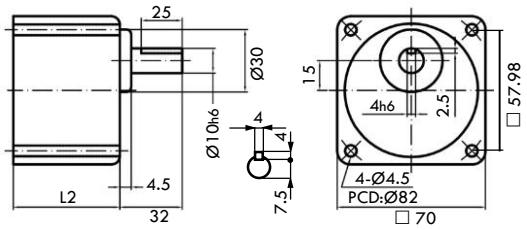
No.	Type of Motor / Product Code	L1
1	Induction Motor 3IK15A-□, (3IK15GN-□)	82
2	Reversible Motor 3RK15A-□, (3RK15GN-□)	83
3	Electromagnetic Brake Motor 3IK15A-□B, (3IK15GN-□B)	125
4	Reversible Electromagnetic Brake Motor 3RK15A-□B, (3RK15GN-□B)	126

No.	Type of Motor / Product Code	L1
5	Variable Speed Motor 3IK15RA-□, (3IK15RGN-□)	82
6	Variable Speed Reversible Motor 3RK15RA-□, (3RK15RGN-□)	83
7	Variable Speed Electromagnetic Brake Motor 3IK15RA-□B, (3IK15RGN-□B)	125

Default Design: Round shaft motor
( ) Helical shaft motor
□ Voltage
(unit: mm)

3GN

Parallel Shaft Gearhead
3GN3K ~ 3GN240K



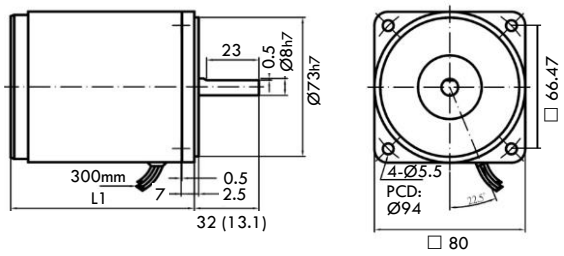
3GN Parallel Shaft Gearhead		
Product Code	Gear Ratio (1/X)	L2
3GN3K ~ 3GN18K	3, 5, 6, 7.5, 9, 12.5, 15, 18	31
3GN25K ~ 3GN75K	25, 30, 36, 50, 60, 75	37
3GN90K ~ 3GN240K	90, 100, 120, 150, 180, 240	43

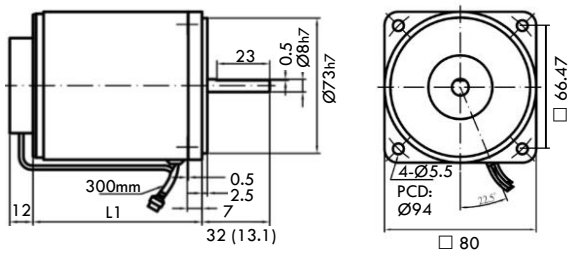
(unit: mm)

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

DIMENSION – COMPACT GEAR MOTOR

Power Rating 25W





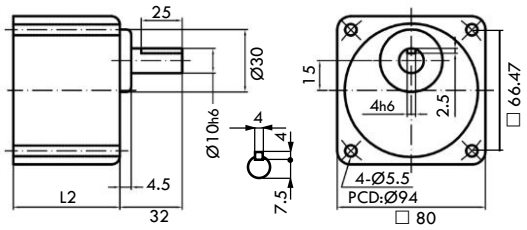
No.	Type of Motor / Product Code	L1
1	Induction Motor 4IK25A-□ (4IK25GN-□)	86
2	Asynchronous Motor 4IK25VA-□ (4IK25VGN-□)	86
3	Reversible Motor 4RK25A-□ (4RK25GN-□)	87
4	Electromagnetic Brake Motor 4IK25A-□B (4IK25GN-□B)	132
5	Reversible Electromagnetic Brake Motor 4RK25A-□B (4RK25GN-□B)	133

No.	Type of Motor / Product Code	L1
6	Variable Speed Motor 4IK25RA-□ (4IK25RGN-□)	86
7	Variable Speed Reversible Motor 4RK25RA-□ (4RK25RGN-□)	87
8	Variable Speed Electromagnetic Brake Motor 4IK25RA-□B (4IK25RGN-□B)	132

Default Design: Round shaft motor
( ) Helical shaft motor
□ Voltage
(unit: mm)

4GN

Parallel Shaft Gearhead
4GN3K ~ 4GN300K



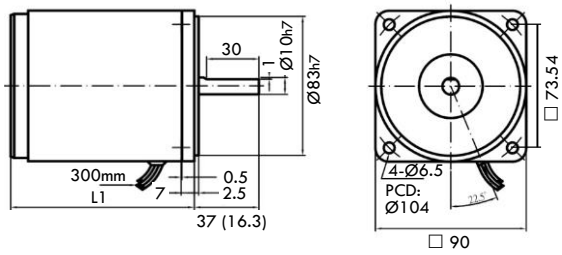
4GN Parallel Shaft Gearhead		
Product Code	Gear Ratio (1/X)	L2
4GN3K ~ 4GN18K	3, 5, 6, 7.5, 9, 12.5, 15, 18	33
4GN25K ~ 4GN75K	25, 30, 36, 50, 60, 75	40
4GN90K ~ 4GN300K	90, 100, 120, 150, 180, 240, 300	47

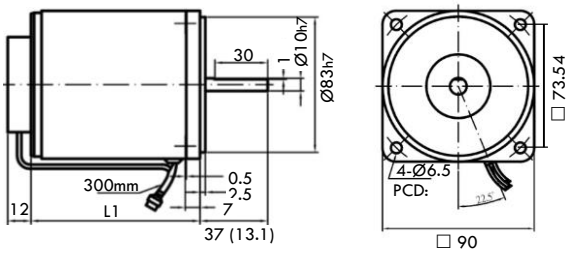
(unit: mm)

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

DIMENSION – COMPACT GEAR MOTOR

Power Rating 40W



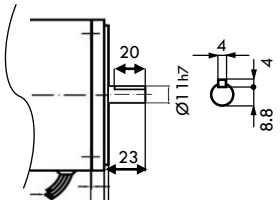


No.	Type of Motor / Product Code	L1
1	Induction Motor 5IK40A-□, (5IK40GN-□)	107
2	Asynchronous Motor 5IK40VA-□, (5IK40VGN-□)	107
3	Reversible Motor 5RK40A-□, (5RK40GN-□)	108
4	Electromagnetic Brake Motor 5IK40A-□B, (5IK40GN-□B)	157
5	Reversible Electromagnetic Brake Motor 5RK40A-□B, (5RK40GN-□B)	158
6	Clutch and Brake Motor 5IK40A-□, (5IK40GB-□)	107
7	Asynchronous Clutch and Brake Motor 5IK40VA-□, (5IK40VGB-□)	107

No.	Type of Motor / Product Code	L1
8	Variable Speed Motor 5IK40RA-□, (5IK40RGN-□)	107
9	Variable Speed Reversible Motor 5RK40RA-□, (5RK40RGN-□)	108
10	Variable Speed Electromagnetic Brake Motor 5IK40RA-□B, (5IK40RGN-□B)	157
11	Variable Speed Clutch and Brake Motor 5IK40A-□, (5IK40RGB-□)	107

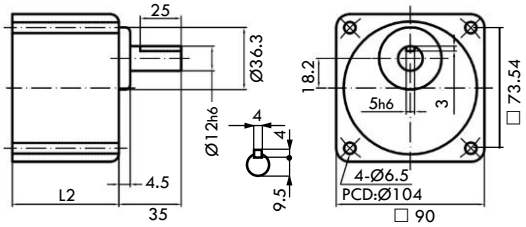
Default Design: Round shaft motor
( ) Helical shaft motor
□ Voltage
(unit: mm)

Motor Output Shaft Option 1:
Round shaft with key (5IK40A-□F-N)

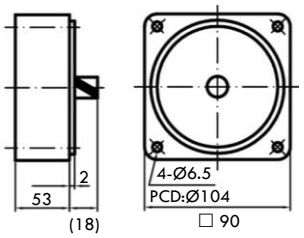


5GN

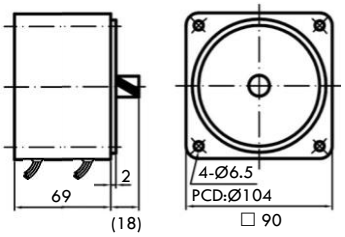
Parallel Shaft Gearhead
5GN3K ~ 5GN240K



5GN10X Decimal Gearhead
Gear Reduction Ratio 1/10



5GN-CB
Clutch and Brake

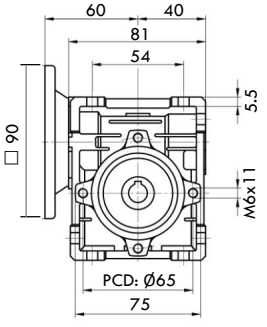


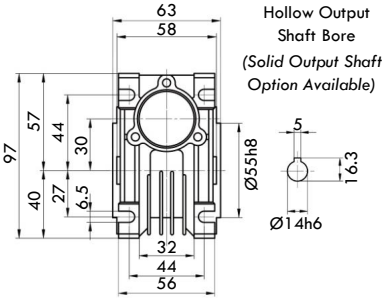
5GN Parallel Shaft Gearhead		
Product Code	Gear Ratio (1/X)	L2
5GN3K ~ 5GN18K	3, 5, 6, 7.5, 9, 12.5, 15, 18	43
5GN25K ~ 5GN75K	25, 30, 36, 50, 60, 75	51
5GN90K ~ 5GN240K	90, 100, 120, 150, 180, 240	60

(unit: mm)

DMRV#30 / DMRS#30

Aluminium Worm Gear Reducer DMRV#30-CM09 / DMRS#30-CM09
Gear Ratio 5 ~ 60 (75 ~ 14,400)
(DMRV#40 / DMRS#40 series available upon request. See page 118)



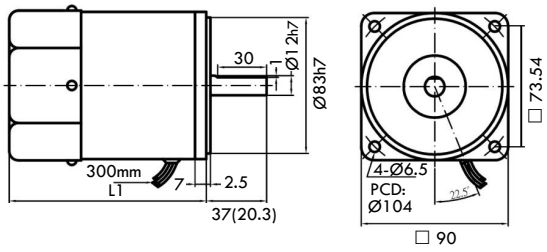


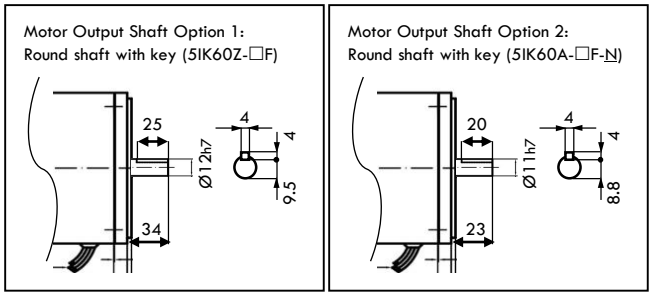
Hollow Output Shaft Bore
(Solid Output Shaft Option Available)

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

DIMENSION – COMPACT GEAR MOTOR

Power Rating 60W



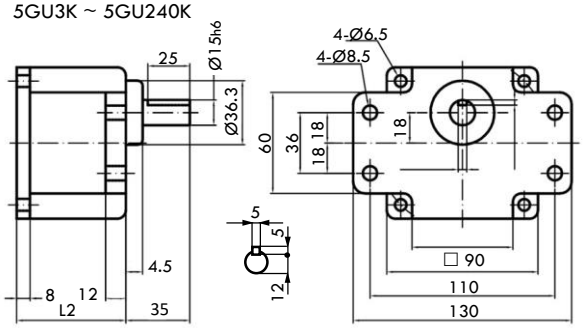


No.	Type of Motor / Product Code	L1	
		Motor with standard cooling fan	Motor with co-active powerful cooling fan
1	Induction Motor 5IK60A-□F, (5IK60GN-□F)	128	148
2	Asynchronous Motor 5IK60VA-□F, (5IK60VGN-□F)	128	148
3	Reversible Motor 5RK60A-□F, (5RK60GN-□F)	129	149
4	Electromagnetic Brake Motor 5IK60A-□FB, (5IK60GN-□FB)	180	200
5	Reversible Electromagnetic Brake Motor 5RK60A-□FB, (5RK60GN-□FB)	181	201
6	Variable Speed Motor 5IK60RA-□F, (5IK60RGN-□F)	137	157
7	Variable Speed Reversible Motor 5RK60RA-□F, (5RK60RGN-□F)	138	158
8	Variable Speed Electromagnetic Brake Motor 5IK60RA-□FB, (5IK60RGN-□FB)	189	209
9	Clutch and Brake Motor 5IK60GB-□F	128	148
10	Asynchronous Clutch and Brake Motor 5IK60VGB-□F	128	148
11	Variable Speed Clutch and Brake Motor 5IK60RGB-□F	137	157

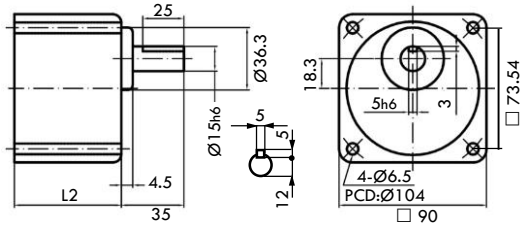
Default Design: Round shaft motor
( ) Helical shaft motor
□ Voltage
(unit: mm)

5GU

Parallel Shaft Gearhead (Flange Type - Heavy Duty)
5GU3K ~ 5GU240K



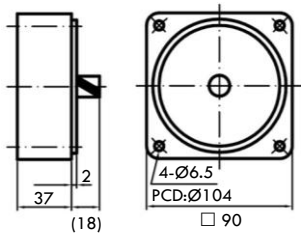
Parallel Shaft Gearhead
5GU3KB ~ 5GU240KB



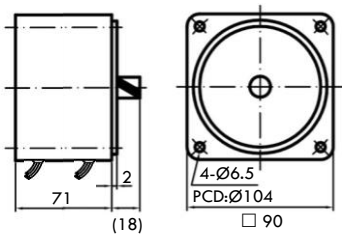
5GU Parallel Shaft Gearhead		
Product Code	Gear Ratio (1/X)	L2
5GU3K ~ 5GU18K 5GU3KB ~ 5GU18KB	3, 5, 6, 7.5, 9, 12.5, 15, 18	43
5GU25K ~ 5GU75K 5GU25KB ~ 5GU75KB	25, 30, 36, 50, 60, 75	51
5GU90K ~ 5GU240K 5GU90KB ~ 5GU240KB	90, 100, 120, 150, 180, 240	60

(unit: mm)

Decimal Gearhead 5GU10X
Gear Reduction Ratio 1/10



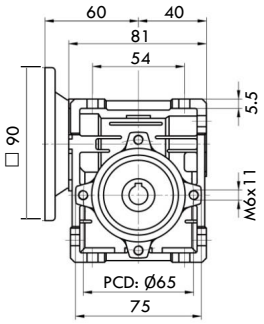
Clutch and Brake 5GU-CB
DC24V

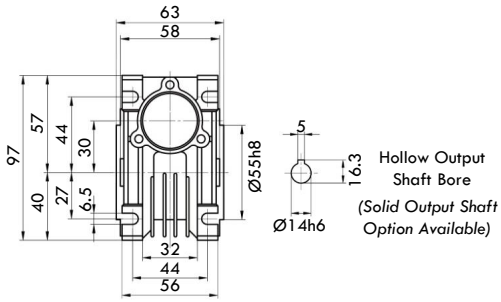


DMRV#30
DMRS#30

Aluminium Worm Gear Reducer
DMRV#30-CM09
DMRS#30-CM09
Gear Ratio 5 ~ 60 (75 ~ 14,400)

(DMRV#40 / DMRS#40 series available upon request.
See page 118)

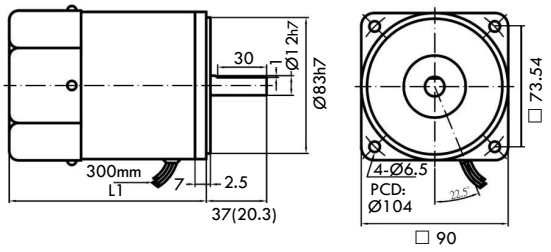


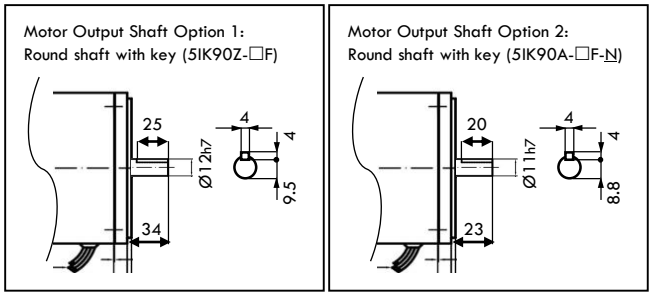


Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

DIMENSION – COMPACT GEAR MOTOR

Power Rating 90W



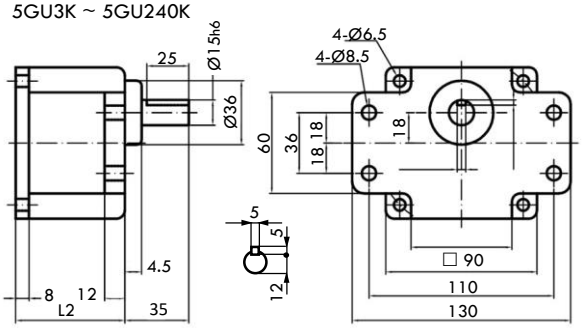


No.	Type of Motor / Product Code	L1	
		Motor with standard cooling fan	Motor with co-active powerful cooling fan
1	Induction Motor 5IK90A-□F, (5IK90GN-□F)	143	163
2	Asynchronous Motor 5IK90VA-□F, (5IK90VGN-□F)	143	163
3	Reversible Motor 5RK90A-□F, (5RK90GN-□F)	144	164
4	Electromagnetic Brake Motor 5IK90A-□FB, (5IK90GN-□FB)	195	215
5	Reversible Electromagnetic Brake Motor 5RK90A-□FB, (5RK90GN-□FB)	196	216
6	Variable Speed Motor 5IK90RA-□F, (5IK90RGN-□F)	152	172
7	Variable Speed Reversible Motor 5RK90RA-□F, (5RK90RGN-□F)	153	173
8	Variable Speed Electromagnetic Brake Motor 5IK90RA-□FB, (5IK90RGN-□FB)	207	227
9	Clutch and Brake Motor 5IK90GB-□F	143	163
10	Asynchronous Clutch and Brake Motor 5IK90VGB-□F	143	163
11	Variable Speed Clutch and Brake Motor 5IK90RGB-□F	152	172

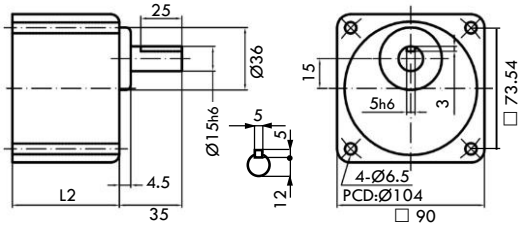
Default Design: Round shaft motor
( ) Helical shaft motor
□ Voltage
(unit: mm)

5GU

Parallel Shaft Gearhead (Flange Type - Heavy Duty)
5GU3K ~ 5GU240K



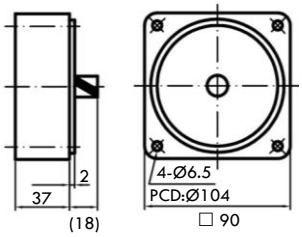
Parallel Shaft Gearhead
5GU3KB ~ 5GU240KB



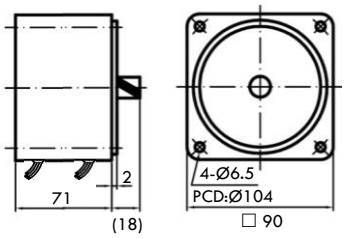
5GU Parallel Shaft Gearhead		
Product Code	Gear Ratio (1/X)	L2
5GU3K ~ 5GU18K 5GU3KB ~ 5GU18KB	3, 5, 6, 7.5, 9, 12.5, 15, 18	43
5GU25K ~ 5GU75K 5GU25KB ~ 5GU75KB	25, 30, 36, 50, 60, 75	51
5GU90K ~ 5GU240K 5GU90KB ~ 5GU240KB	90, 100, 120, 150, 180, 240	60

(unit: mm)

Decimal Gearhead 5GU10X
Gear Reduction Ratio 1/10



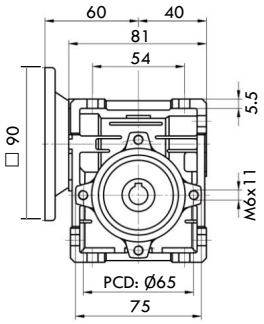
Clutch and Brake 5GU-CB
DC24V

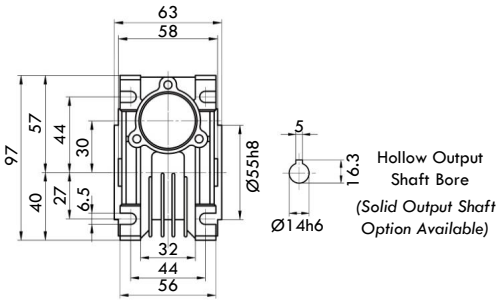


DMRV#30
DMRS#30

Aluminium Worm Gear Reducer
DMRV#30-CM09
DMRS#30-CM09
Gear Ratio 5 ~ 60 (75 ~ 14,400)

(DMRV#40 / DMRS#40 series available upon request.
See page 118)

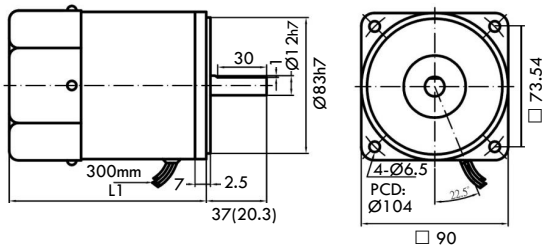


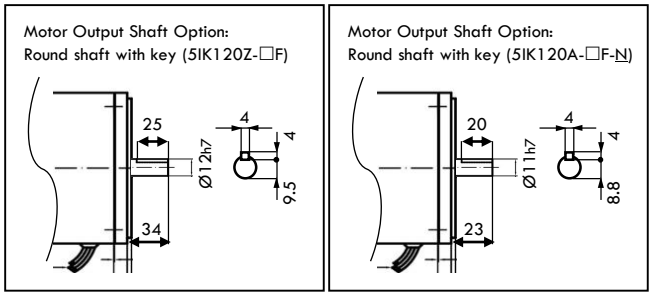


Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

DIMENSION – COMPACT GEAR MOTOR

Power Rating 120W



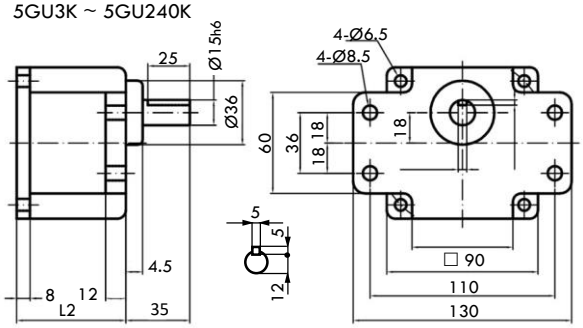


No.	Type of Motor / Product Code	L1	
		Motor with standard cooling fan	Motor with co-active powerful cooling fan
1	Induction Motor 5IK120A-□F, (5IK120GN-□F)	143	163
2	Asynchronous Motor 5IK120VA-□F, (5IK120VGN-□F)	143	163
3	Reversible Motor 5RK120A-□F, (5RK120GN-□F)	144	164
4	Electromagnetic Brake Motor 5IK120A-□FB, (5IK120GN-□FB)	195	215
5	Reversible Electromagnetic Brake Motor 5RK120A-□FB, (5RK120GN-□FB)	196	216
6	Variable Speed Motor 5IK120RA-□F, (5IK120RGN-□F)	152	172
7	Variable Speed Reversible Motor 5RK120RA-□F, (5RK120RGN-□F)	153	173
8	Variable Speed Electromagnetic Brake Motor 5IK120RA-□FB, (5IK120RGN-□FB)	207	227
9	Clutch and Brake Motor 5IK120GB-□F	143	163
10	Asynchronous Clutch and Brake Motor 5IK120VGB-□F	143	163
11	Variable Speed Clutch and Brake Motor 5IK120RGB-□F	152	172

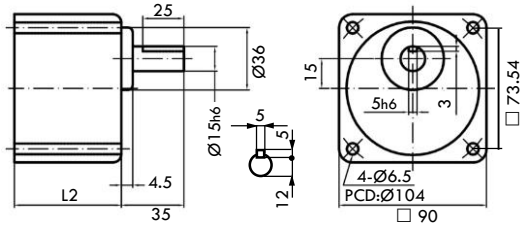
Default Design: Round shaft motor
( ) Helical shaft motor
□ Voltage
(unit: mm)

5GU

Parallel Shaft Gearhead (Flange Type - Heavy Duty)
5GU3K ~ 5GU240K



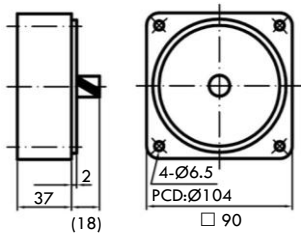
Parallel Shaft Gearhead
5GU3KB ~ 5GU240KB



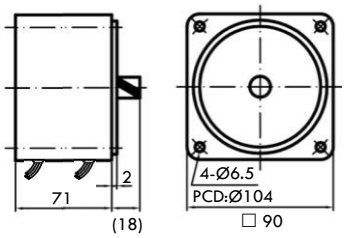
5GU Parallel Shaft Gearhead		
Product Code	Gear Ratio (1/X)	L2
5GU3K ~ 5GU18K 5GU3KB ~ 5GU18KB	3, 5, 6, 7.5, 9, 12.5, 15, 18	43
5GU25K ~ 5GU75K 5GU25KB ~ 5GU75KB	25, 30, 36, 50, 60, 75	51
5GU90K ~ 5GU240K 5GU90KB ~ 5GU240KB	90, 100, 120, 150, 180, 240	60

(unit: mm)

Decimal Gearhead 5GU10X
Gear Reduction Ratio 1/10



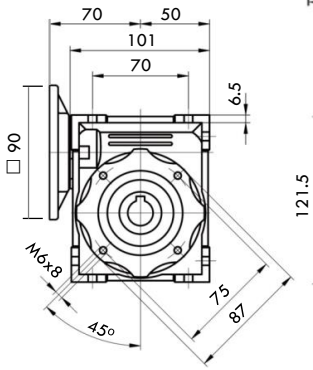
Clutch and Brake 5GU-CB
DC24V

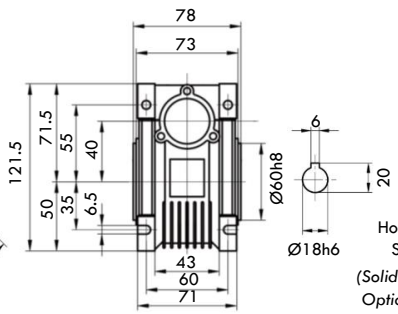


DMRV#40
DMRS#40

Aluminium Worm Gear Reducer
DMRV#40-CM09
DMRS#40-CM09
Gear Ratio 5 ~ 60 (75 ~ 14,400)

(DMRV#30 / DMRS#30 series available upon request.
See page 118)



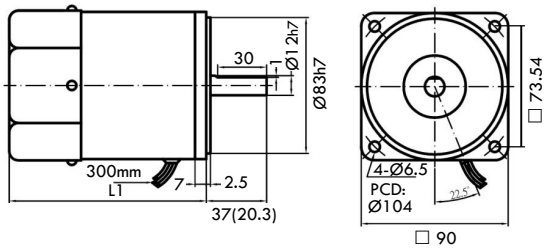


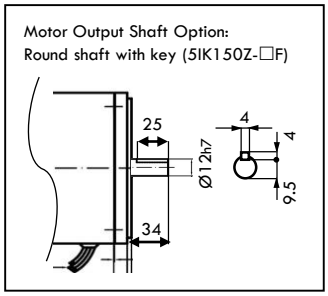
Hollow Output Shaft Bore
(Solid Output Shaft Option Available)

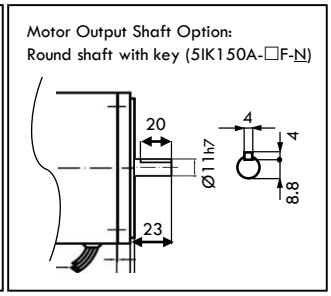
Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

DIMENSION – COMPACT GEAR MOTOR

Power Rating 150W





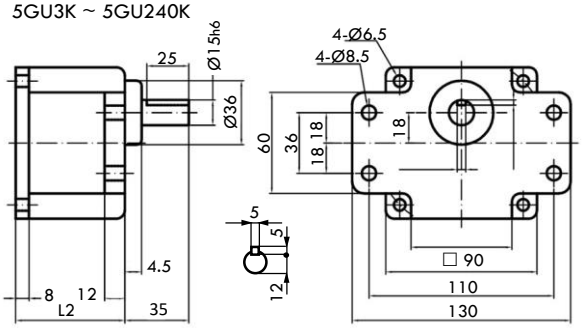


No.	Type of Motor / Product Code	L1
1	Induction Motor 5IK150A-□EF, (5IK150GN-□EF)	168
2	Asynchronous Motor 5IK150VA-□EF, (5IK150VGN-□EF)	168
3	Electromagnetic Brake Motor 5IK150A-□FB, (5IK150GN-□EFB)	220
4	Variable Speed Motor 5IK150RA-□F, (5IK150RGN-□EF)	177
5	Variable Speed Electromagnetic Brake Motor 5IK150RA-□EFB, (5IK150RGN-□EFB)	232
6	Clutch and Brake Motor 5IK150GB-□EF	168
7	Asynchronous Clutch and Brake Motor 5IK150VGB-□EF	168
8	Variable Speed Clutch and Brake Motor 5IK150RGB-□EF	177

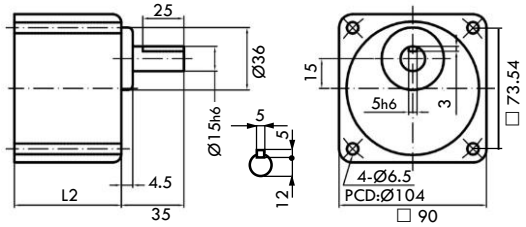
Default Design: Round shaft motor
( ) Helical shaft motor
□ Voltage
(unit: mm)

5GU

Parallel Shaft Gearhead (Flange Type - Heavy Duty)
5GU3K ~ 5GU240K



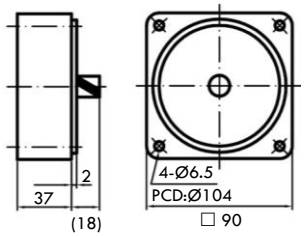
Parallel Shaft Gearhead
5GU3KB ~ 5GU240KB



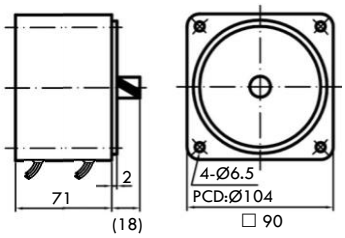
5GU Parallel Shaft Gearhead		
Product Code	Gear Ratio (1/X)	L2
5GU3K ~ 5GU18K 5GU3KB ~ 5GU18KB	3, 5, 6, 7.5, 9, 12.5, 15, 18	43
5GU25K ~ 5GU75K 5GU25KB ~ 5GU75KB	25, 30, 36, 50, 60, 75	51
5GU90K ~ 5GU240K 5GU90KB ~ 5GU240KB	90, 100, 120, 150, 180, 240	60

(unit: mm)

Decimal Gearhead 5GU10X
Gear Reduction Ratio 1/10



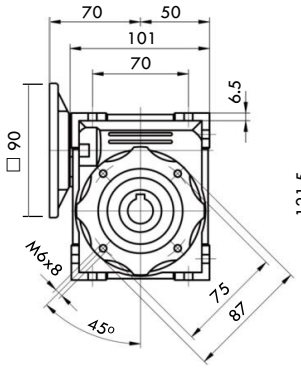
Clutch and Brake 5GU-CB
DC24V

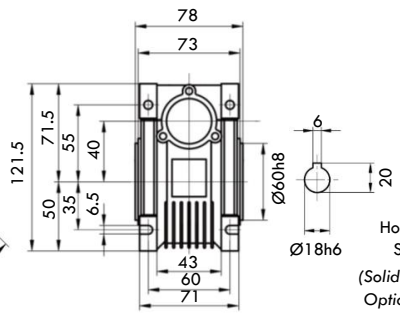


DMRV#40
DMRS#40

Aluminium Worm Gear Reducer
DMRV#40-CM09
DMRS#40-CM09
Gear Ratio 5 ~ 60 (75 ~ 14,400)

(DMRV#30 / DMRS#30 series available upon request.
See page 118)



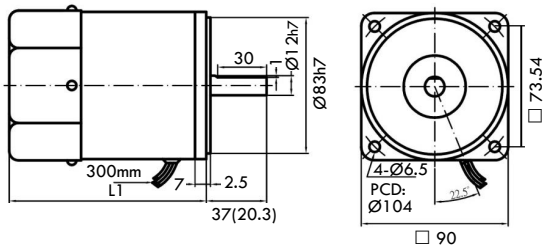


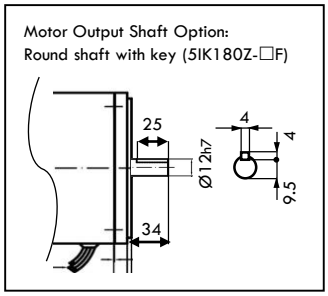
Hollow Output Shaft Bore
(Solid Output Shaft Option Available)

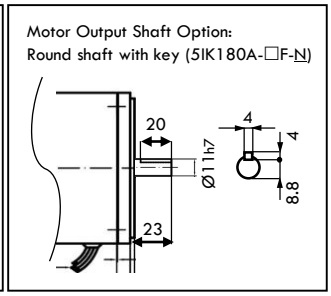
Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

DIMENSION – COMPACT GEAR MOTOR

Power Rating 180W





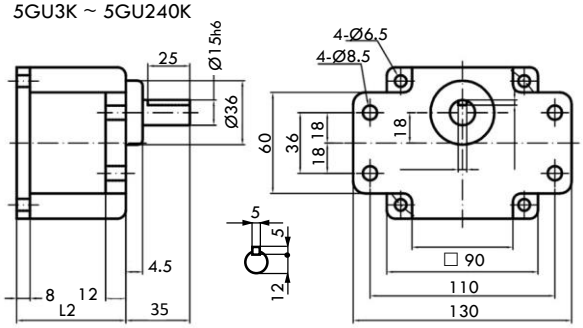


No.	Type of Motor / Product Code	L1
1	Induction Motor 5IK180A-□EF, (5IK180GN-□EF)	168
2	Asynchronous Motor 5IK180VA-□EF, (5IK180VGN-□EF)	168
3	Electromagnetic Brake Motor 5IK180A-□FB, (5IK180GN-□EFB)	220
4	Variable Speed Motor 5IK180RA-□F, (5IK180RGN-□EF)	177
5	Variable Speed Electromagnetic Brake Motor 5IK180RA-□EFB, (5IK180RGN-□EFB)	232
6	Clutch and Brake Motor 5IK180GB-□EF	168
7	Asynchronous Clutch and Brake Motor 5IK180VGB-□EF	168
8	Variable Speed Clutch and Brake Motor 5IK180RGB-□EF	177

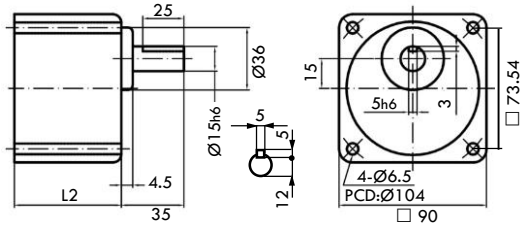
Default Design: Round shaft motor
( ) Helical shaft motor
□ Voltage
(unit: mm)

5GU

Parallel Shaft Gearhead (Flange Type - Heavy Duty)
5GU3K ~ 5GU240K



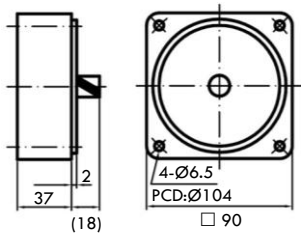
Parallel Shaft Gearhead
5GU3KB ~ 5GU240KB



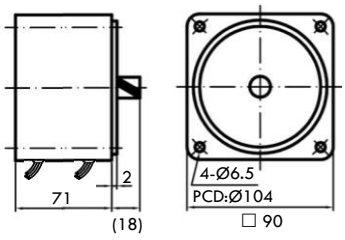
5GU Parallel Shaft Gearhead		
Product Code	Gear Ratio (1/X)	L2
5GU3K ~ 5GU18K 5GU3KB ~ 5GU18KB	3, 5, 6, 7.5, 9, 12.5, 15, 18	43
5GU25K ~ 5GU75K 5GU25KB ~ 5GU75KB	25, 30, 36, 50, 60, 75	51
5GU90K ~ 5GU240K 5GU90KB ~ 5GU240KB	90, 100, 120, 150, 180, 240	60

(unit: mm)

Decimal Gearhead 5GU10X
Gear Reduction Ratio 1/10



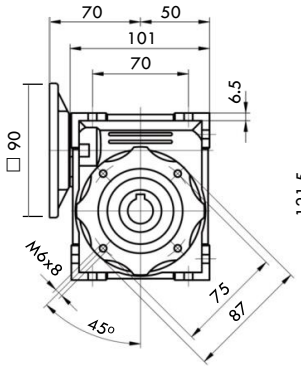
Clutch and Brake 5GU-CB
DC24V

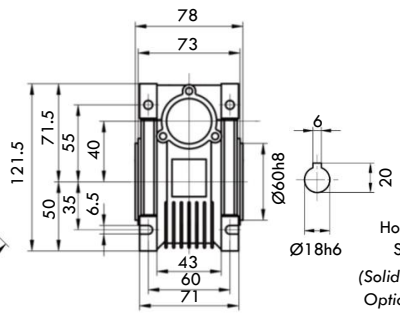


DMRV#40
DMRS#40

Aluminium Worm Gear Reducer
DMRV#40-CM09
DMRS#40-CM09
Gear Ratio 5 ~ 60 (75 ~ 14,400)

(DMRV#30 / DMRS#30 series available upon request.
See page 118)

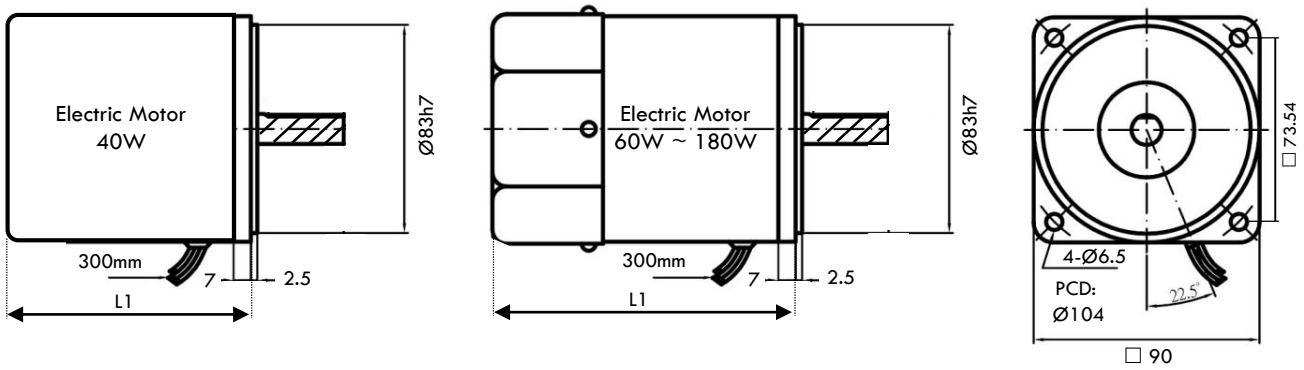




Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

DIMENSION – COMPACT GEAR MOTOR

Power Rating **40W ~ 180W** (Bevel GearBox)



	Motor Power	40W	60W	90W	120W	90W	120W	150W	180W
No.	Type of Motor / Product Code	L1 (Standard Motor)				L1 (Motor with Powerful)			
1	Induction Motor 5IK_GX-□, 5IK_GX-□F, , 5IK_GX-□EF	107	128	143	145	163	165	167	168
2	Asynchronous Motor 5IK_VGX-□F, 5IK_VGX-□F, 5IK_VGX-□EF	107	128	143	145	163	165	167	168
3	Reversible Motor 5RK_GX-□, 5RK_GX-□F, 5RK_GX-□EF	108	129	144	146	164	166	--	--
4	Induction Motor with Electromagnetic Brake 5IK_GX-□B, 5IK_GX-□FB, 5IK_GX-□EFB	157	180	195	197	215	217	219	220
5	Reversible Motor with Electromagnetic Brake 5RK_GX-□B, 5RK_GX-□FB, 5RK_GX-□EFB	158	181	196	198	216	218	--	--
6	Variable Speed Motor 5IK_RGX-□, 5IK_RGX-□F, 5IK_RGX-□EF	107	137	152	154	172	174	176	177
7	Variable Speed Reversible Motor 5RK_RGX-□, 5RK_RGX-□F, 5RK_RGX-□EF	108	138	153	155	173	175	--	--
8	Variable Speed Motor with Electromagnetic Brake 5IK_RGX-□B, 5IK_RGX-□FB, 5IK_RGX-□EFB	157	189	207	209	227	229	131	132
9	Induction Motor with Clutch & Brake 5IK_GB-□, 5IK_GB-□F, 5IK_GB-□EF (& 5GU-CB)	179	200	215	217	163	237	239	240
10	Asynchronous Motor with Clutch & Brake 5IK_VGB-□, 5IK_VGB-□F, 5IK_VGB-□EF (& 5GU-CB)	179	200	215	217	163	237	239	240
11	Variable Speed Motor with Clutch & Brake 5IK_RGB-□, 5IK_RGB-□F, 5IK_RGB-□EF (& 5GU-CB)	188	209	224	226	172	246	249	249

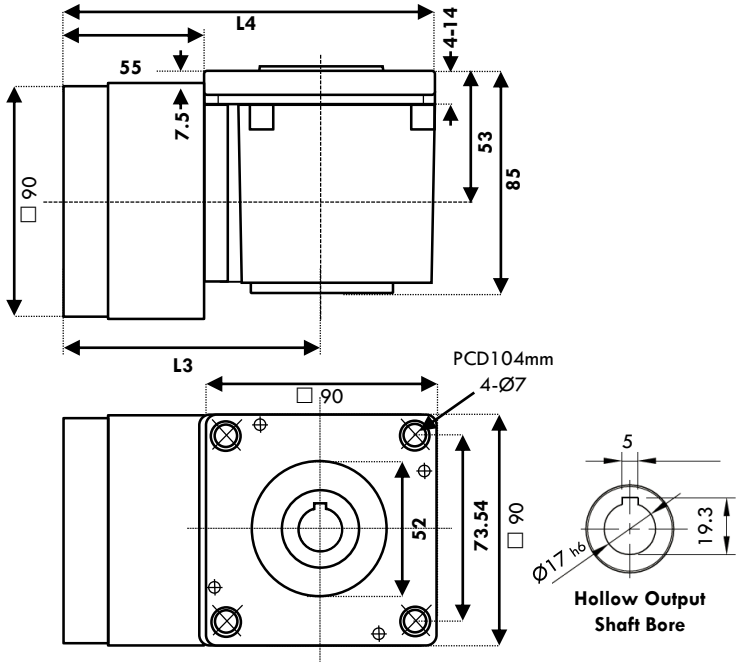
Remark : Motor Power _ / Voltage □

5GX-KB-RH

Bevel Gearhead (Hollow Shaft Type)
5GX9KB-RH ~ 5GX225KB-RH

5GX-H Bevel Gearhead			
Product Code	Gear Ratio (1/X)	L3	L4
5GX9KB-RH ~ 5GX54KB-RH	9, 15, 18, 22, 27, 37 45,54	93	138
5GX75KB-RH ~ 5GX225KB-RH	75, 90, 108, 150, 180, 225	102	147

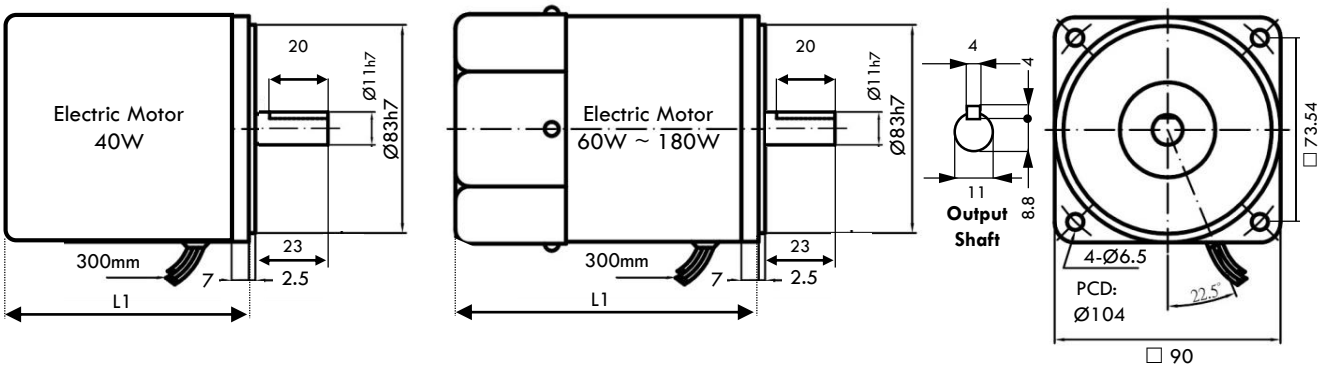
(unit: mm)



Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

DIMENSION – COMPACT GEAR MOTOR

Power Rating **40W ~ 180W** (Worm GearBox #030)

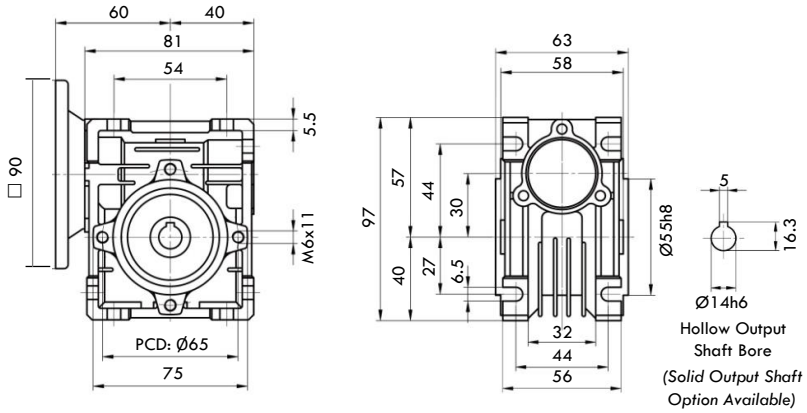


	Motor Power	40W	60W	90W	120W	90W	120W	150W	180W
No.	Type of Motor / Product Code	L1 (Standard Motor)				L1 (Motor with Powerful)			
1	Induction Motor 5IK_A-□-N, 5IK_A-□F-N, 5IK_A-□EF-N	107	128	143	145	163	165	167	168
2	Asynchronous Motor 5IK_VA-□-N, 5IK_VA-□F-N, 5IK_VA-□EF-N	107	128	143	145	163	165	167	168
3	Reversible Motor 5RK_A-□-N, 5RK_A-□F-N, 5RK_A-□EF-N	108	129	144	146	164	166	--	--
4	Induction Motor with Electromagnetic Brake 5IK_A-□B-N, 5IK_A-□FB-N, 5IK_A-□EFB-N	157	180	195	197	215	217	219	220
5	Reversible Motor with Electromagnetic Brake 5RK_A-□B-N, 5RK_A-□FB-N, 5RK_A-□EFB-N	158	181	196	198	216	218	--	--
6	Variable Speed Motor 5IK_RA-□-N, 5IK_RA-□F-N, 5IK_RA-□EF-N	107	137	152	154	172	174	176	177
7	Variable Speed Reversible Motor 5RK_RA-□-N, 5RK_RA-□F-N, 5RK_RA-□EF-N	108	138	153	155	173	175	--	--
8	Variable Speed Motor with Electromagnetic Brake 5IK_RA-□B-N, 5IK_RA-□FB-N, 5IK_RA-□EFB-N	157	189	207	209	227	229	131	132

Remark : Motor Power _ / Voltage □

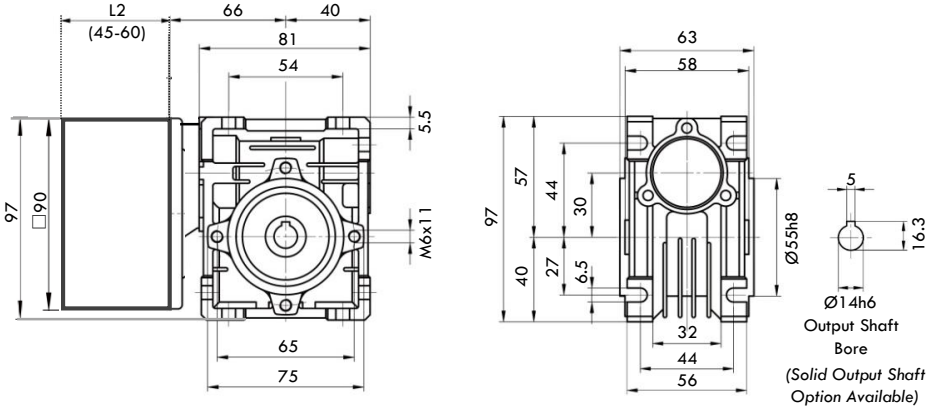
DMRV#30
DMRS#30
8MRV#30

Aluminium Worm Gear Reducer
DMRV#30-CM09
DMRS#30-CM09
8MRV#30-CM09
Gear Ratio 5 ~ 80 (1Stage)



DMRV#30
DMRS#30
8MRV#30

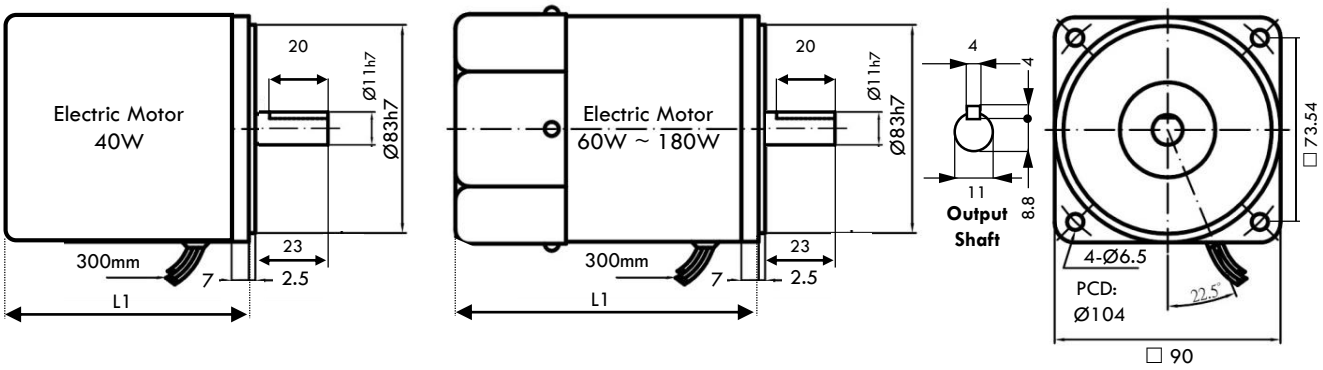
Aluminium Worm Gear Reducer
DMRV#30-CG09
DMRS#30-CG09
8MRV#30-CG09
Gear Ratio 100 ~ 14,400 (2Stage)



Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

DIMENSION – COMPACT GEAR MOTOR

Power Rating **40W ~ 180W** (Worm GearBox #040)

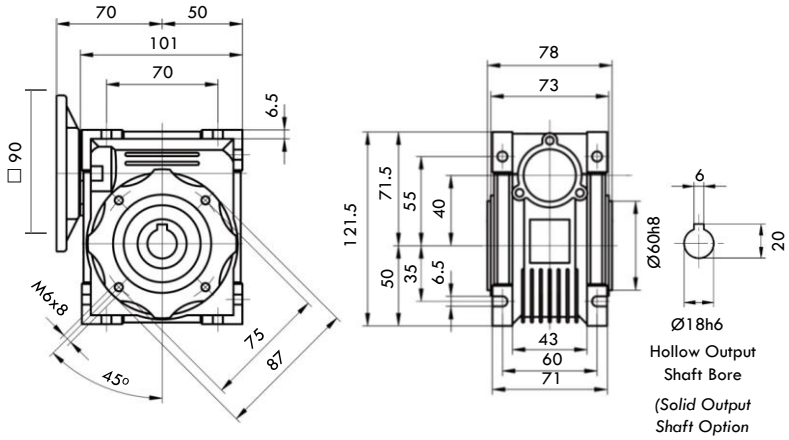


	Motor Power	40W	60W	90W	120W	90W	120W	150W	180W
No.	Type of Motor / Product Code	L1 (Standard Motor)				L1 (Motor with Powerful)			
1	Induction Motor 5IK_A-□-N, 5IK_A-□F-N, 5IK_A-□EF-N	107	128	143	145	163	165	167	168
2	Asynchronous Motor 5IK_VA-□-N, 5IK_VA-□F-N, 5IK_VA-□EF-N	107	128	143	145	163	165	167	168
3	Reversible Motor 5RK_A-□-N, 5RK_A-□F-N, 5RK_A-□EF-N	108	129	144	146	164	166	--	--
4	Induction Motor with Electromagnetic Brake 5IK_A-□B-N, 5IK_A-□FB-N, 5IK_A-□EFB-N	157	180	195	197	215	217	219	220
5	Reversible Motor with Electromagnetic Brake 5RK_A-□B-N, 5RK_A-□FB-N, 5RK_A-□EFB-N	158	181	196	198	216	218	--	--
6	Variable Speed Motor 5IK_RA-□-N, 5IK_RA-□F-N, 5IK_RA-□EF-N	107	137	152	154	172	174	176	177
7	Variable Speed Reversible Motor 5RK_RA-□-N, 5RK_RA-□F-N, 5RK_RA-□EF-N	108	138	153	155	173	175	--	--
8	Variable Speed Motor with Electromagnetic Brake 5IK_RA-□B-N, 5IK_RA-□FB-N, 5IK_RA-□EFB-N	157	189	207	209	227	229	231	232

Remark : Motor Power _ / Voltage □

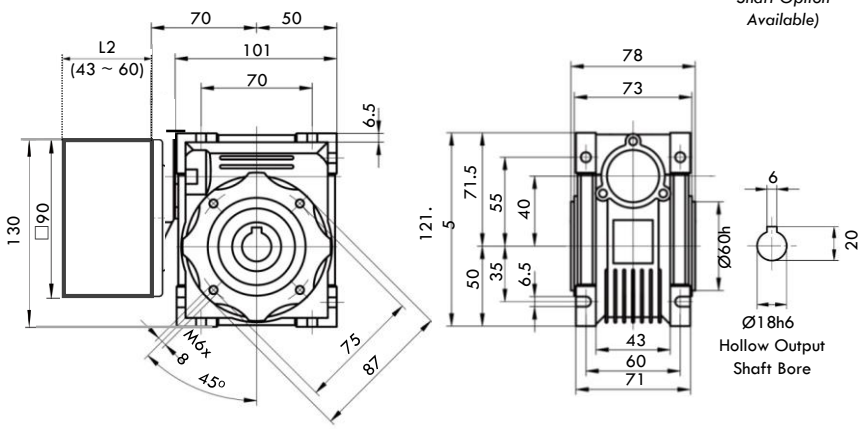
DMRV#40
DMRS#40
8MRV#40

Aluminium Worm Gear Reducer
DMRV#40-CM09
DMRS#40-CM09
8MRV#40-CM09
Gear Ratio 5 ~ 80 (1Stage)



DMRV#40
DMRS#40
8MRV#40

Aluminium Worm Gear Reducer
DMRV#40-CC09
DMRS#40-CC09
8MRV#40-CC09
Gear Ratio 100 ~ 14,400 (2Stage)

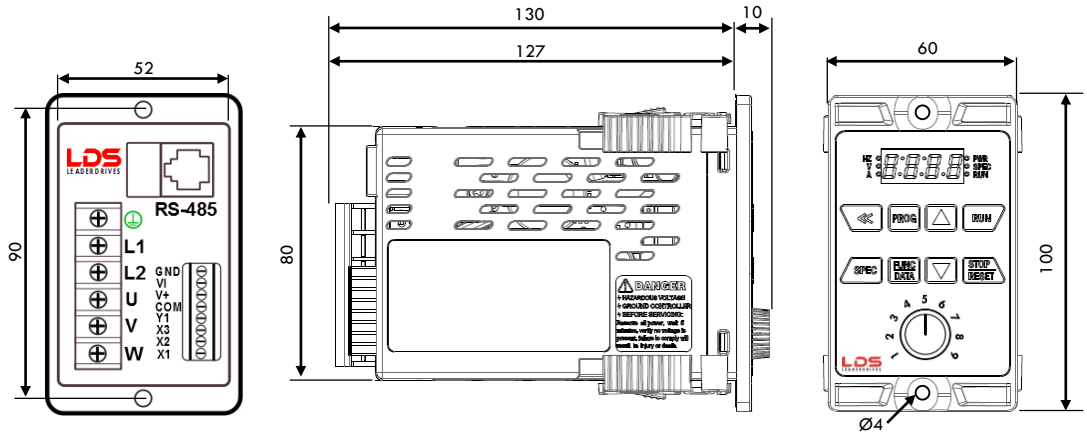


Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

DIMENSION – COMPACT GEAR MOTOR

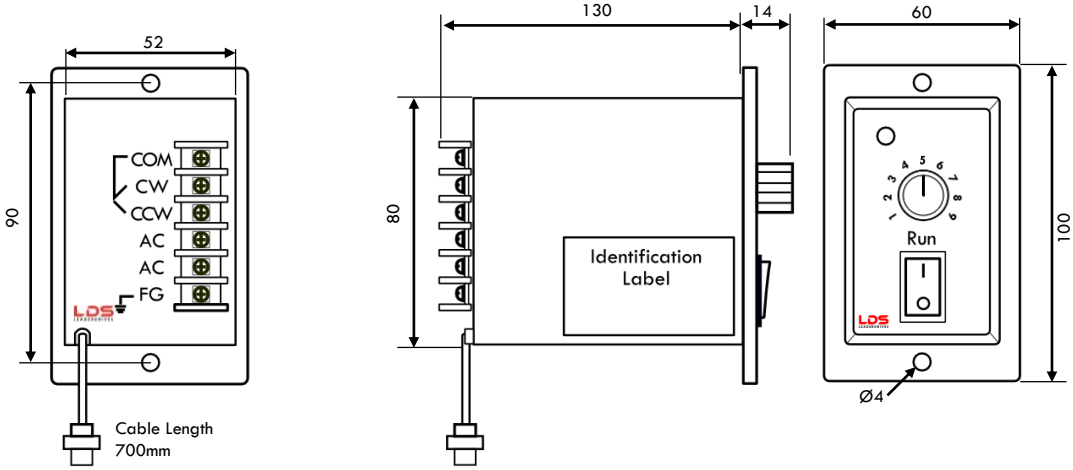
Model IGBT-K060 ▪ IGBT-K100 ▪ IGBT-K200

Compact Inverter with LED Digital Display



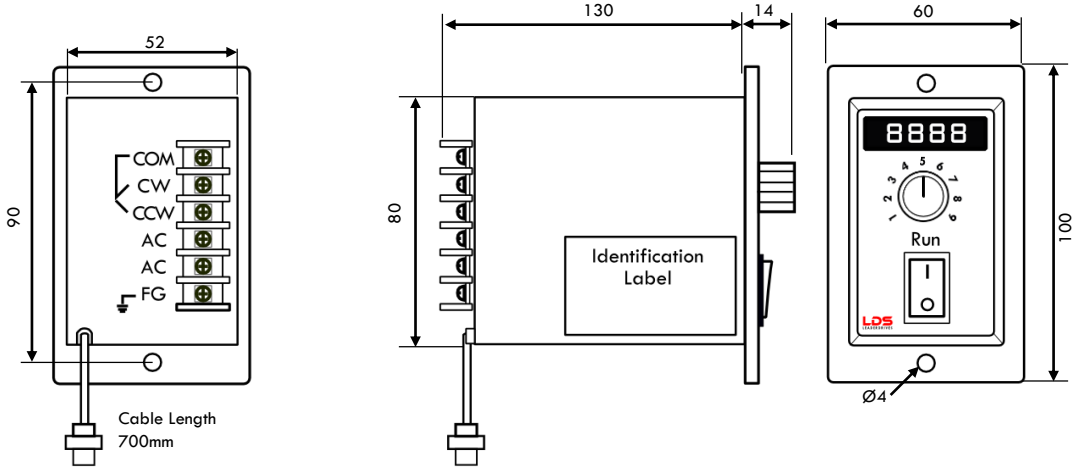
Model USM71 ▪ USM72 ▪ US61 ▪ US62 ▪ US71 ▪ US72

Analogue Speed Controller



Model US1000 ▪ US2000

Speed Controller with LED Digital Display

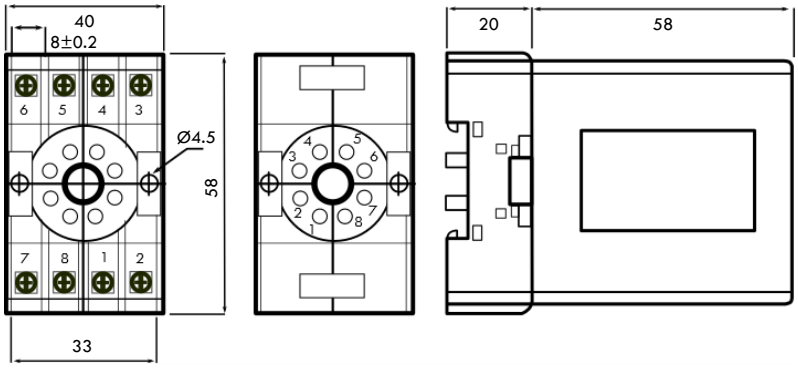


Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.
(Unit : mm)

DIMENSION – COMPACT GEAR MOTOR

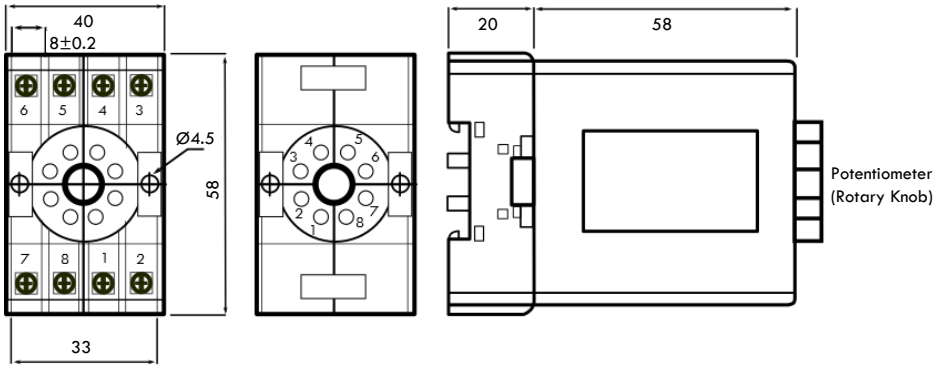
Model **SS61 ▪ SS62**

Din Rail Type Speed Controller (8pin)



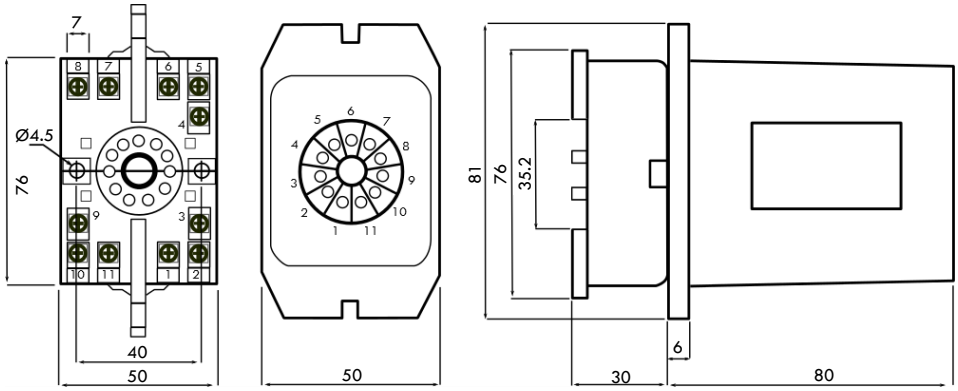
Model **SD61 ▪ SD62**

Din Rail Type Speed Controller (8pin)



Model **SS31 ▪ SS32**

Din Rail Type Brake Pack Speed Controller (11pin)

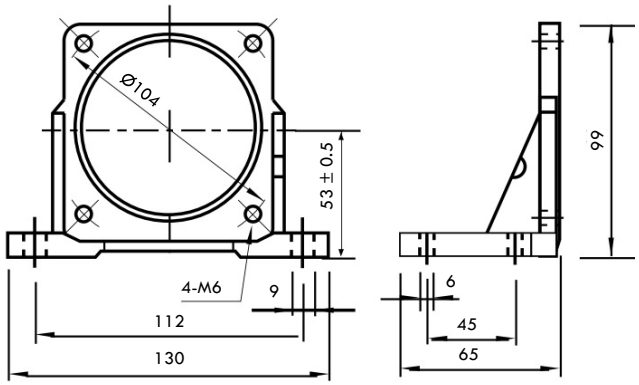


Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.
(Unit : mm)

DIMENSION – COMPACT GEAR MOTOR

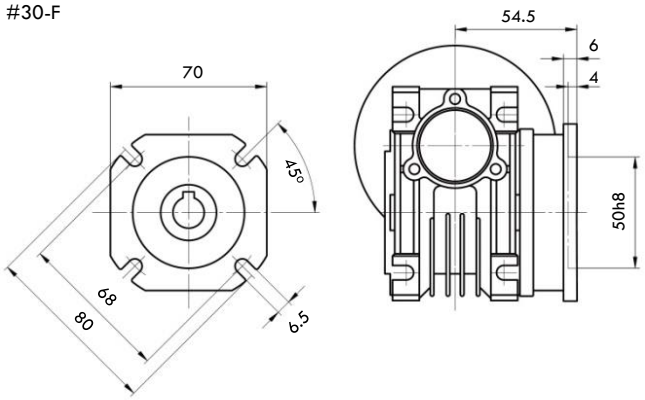
Model TYPE-F BRACKET

TYPE – F Foot Mounting Bracket
For 40W ~ 180W Motor

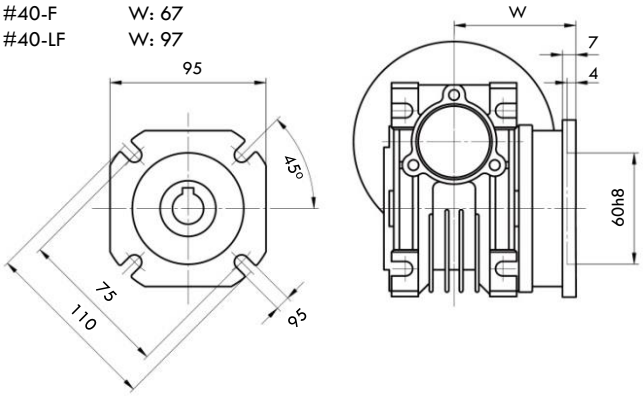


Model OUTPUT FLANGE

For DMRV#30 / DMRS#30 / 8MRV#30
Worm Gear Reducer
#30-F

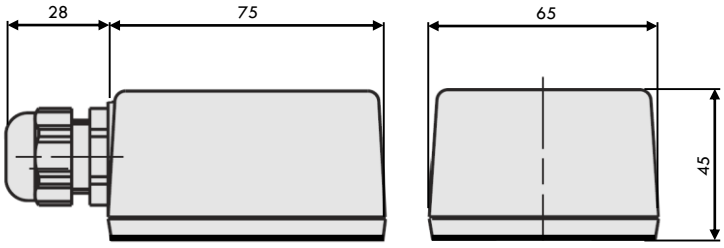


For DMRV#40 / DMRS#40/ 8MRV#30 Worm Gear Reducer
#40-F W: 67
#40-LF W: 97



Model TERMINAL BOX

For 3phase Compact Gear Motor.



Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.
(Unit : mm)

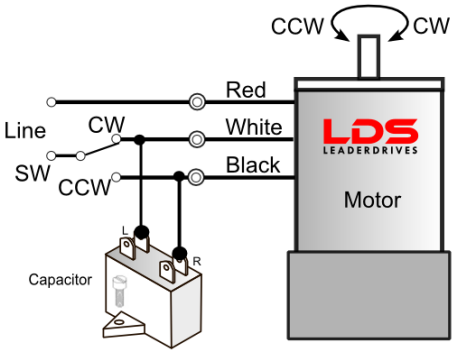
CONNECTION DIAGRAM

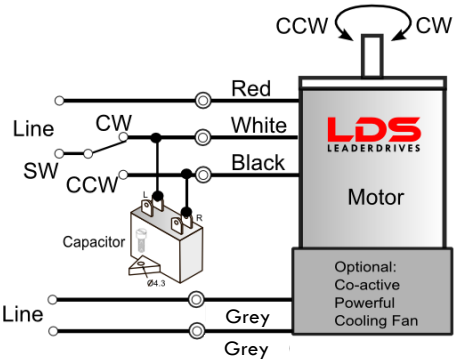
Model — INDUCTION MOTOR ▪ REVERSIBLE MOTOR (1PHASE)

Motor Input Voltage : AC 1Ø 100~110V ▪ 1Ø 220~240V

Coactive Fan Input Voltage : AC 100~110V ▪ AC 220~240V

Direction of Rotation:
To change the rotation, switch to CW or CCW connection.





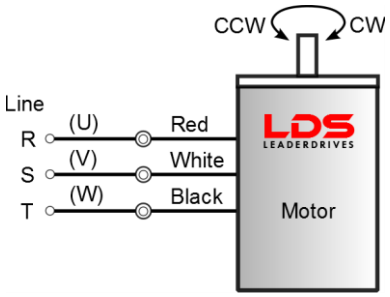
Model — INDUCTION MOTOR (3PHASE)

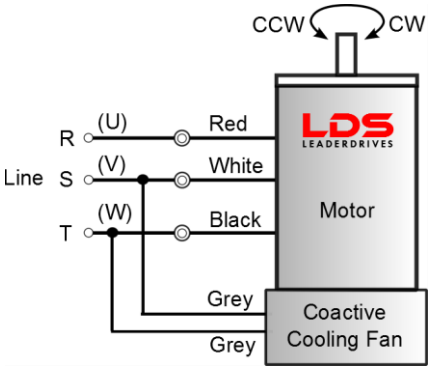
Motor Input Voltage : AC 3Ø 220~240V

Coactive Fan Input Voltage : AC 220~240V

Direction of Rotation:
To change the rotation, exchange any two wires between U, V and W.

* If the motor is powered by an inverter or electronic soft starter, use separate Power Supply 220V to connect to the Coactive Cooling Fan.





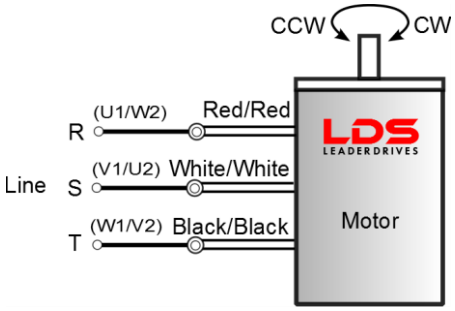
Model — INDUCTION MOTOR (3PHASE - 6 WIRES)

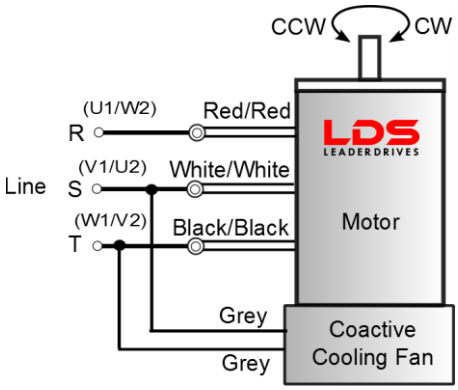
Motor Input Voltage : AC 3Ø 220~240V

Coactive Fan Input Voltage : AC 3Ø 220~240V

Direction of Rotation:
To change the rotation, exchange any two wires between U1/W2, V1/U2, and W1/V2.

* If the motor is powered by an inverter or electronic soft starter, use separate Power Supply 220V to connect to the Coactive Cooling Fan.





Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

CONNECTION DIAGRAM

Model

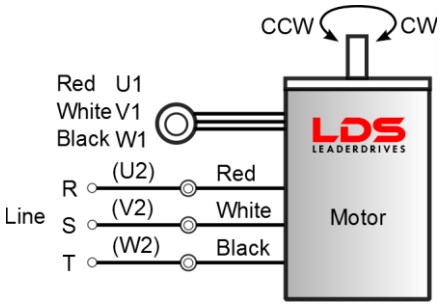
INDUCTION MOTOR (3PHASE - 6 WIRES)

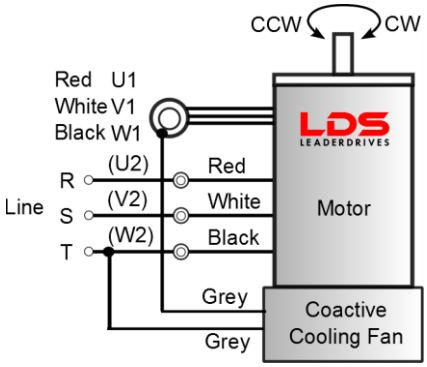
Motor Input Voltage : AC 3Ø 380~415V

Coactive Fan Input Voltage : AC 3Ø 220~240V

Direction of Rotation:
To change the rotation, exchange any two wires between U2, V2 and W2.

*If the motor is powered by an inverter or electronic soft, starter, use separate Power Supply 220V to connect to the Coactive Cooling Fan.





Model

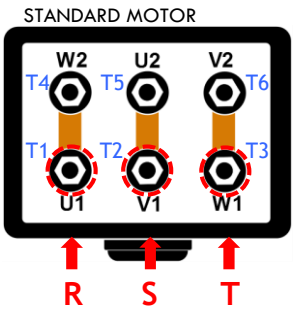
INDUCTION MOTOR WITH TERMINAL BOX (3PHASE)

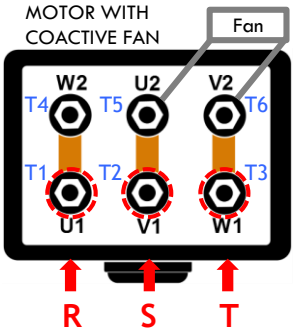
Motor Input Voltage : AC 3Ø 220~240V

Coactive Fan Input Voltage : AC 220~240V

Direction of Rotation:
To change the rotation, exchange any two wires between U1, V1 and W1.

* If the motor is powered by an inverter or electronic soft starter, use separate Power Supply 220V to connect to the Coactive Cooling Fan.





Model

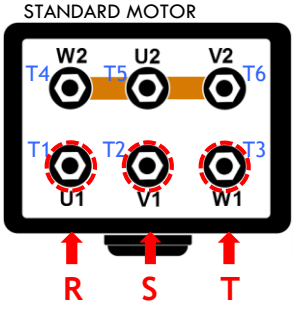
INDUCTION MOTOR WITH TERMINAL BOX (3PHASE)

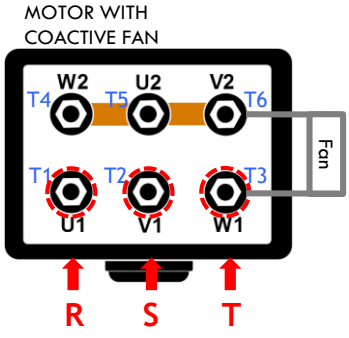
Motor Input Voltage : AC 3Ø 380~415V

Coactive Fan Input Voltage : AC 220~240V

Direction of Rotation:
To change the rotation, exchange any two wires between U1, V1 and W1.

* If the motor is powered by an inverter or electronic soft starter, use separate Power Supply 220V to connect to the Coactive Cooling Fan.





Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

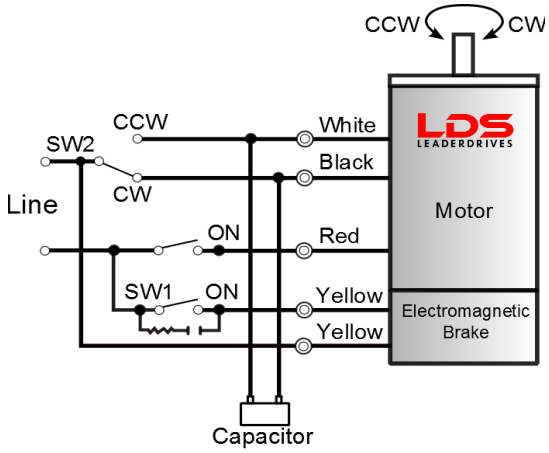
CONNECTION DIAGRAM

Model

ELECTROMAGNETIC BRAKE MOTOR REVERSIBLE
ELECTROMAGNETIC BRAKE MOTOR (1PHASE)

Motor Input Voltage : AC 1Ø 100~110V ▪
AC 1Ø 220~240V

Brake Input Voltage : AC 100~110V ▪
AC 220~240V
(Build-in AC to DC
Rectifier Included)



Operation :
Run/Stop: SW 1 operates motor and electromagnetic brake action. Motor will rotate when SW1 is switched to ON (short circuit).
When SW1 is switched to OFF (open), the motor stopped immediately by the electromagnetic brake and holds the load.

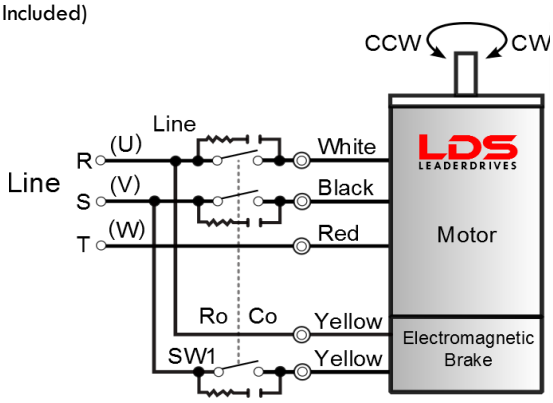
To release the brake while the motor is stopped, apply voltage between only two brake lead wires (yellow). The electromagnetic brake is release and the motor shaft can be rotated easily by hand.

Model

ELECTROMAGNETIC BRAKE MOTOR
(3PHASE)

Motor Input Voltage : AC 3Ø 220~240V

Brake Input Voltage : AC 220~240V (Build-in AC to DC Rectifier Included)



Operation :
Run/Stop: SW 1 operates motor and electromagnetic brake action. Motor will rotate when SW1 is switched to ON (short circuit). When SW1 is switched to OFF (open), the motor stopped immediately by the electromagnetic brake and holds the load.

To release the brake while the motor is stopped, apply voltage between only two brake lead wires (yellow). The electromagnetic brake is release and the motor shaft can be rotated easily by hand.

Direction of Rotation: To change the rotation, exchange any two wires between U, V and W.

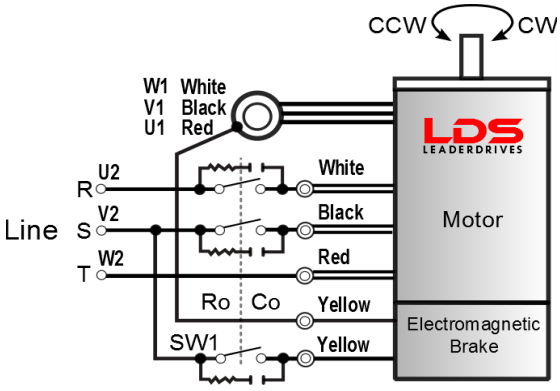
* If the motor is powered by an inverter or electronic soft starter, use Relay or separate Power Supply 220V for Brake Rectifier.

Model

ELECTROMAGNETIC BRAKE MOTOR
(3PHASE – 6 WIRES)

Motor Input Voltage : AC 3Ø 380~415V

Brake Input Voltage : AC 220~240V
(Build-in AC to DC Rectifier Included)



Operation :
Run/Stop: SW 1 operates motor and electromagnetic brake action. Motor will rotate when SW1 is switched to ON (short circuit). When SW1 is switched to OFF (open), the motor stopped immediately by the electromagnetic brake and holds the load.

To release the brake while the motor is stopped, apply voltage between only two brake lead wires (yellow). The electromagnetic brake is release and the motor shaft can be rotated easily by hand.

Direction of Rotation: To change the rotation, exchange any two wires between U2, V2 and W2.

* If the motor is powered by an inverter or electronic soft starter, use Relay or separate Power Supply 220V for Brake Rectifier.

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

CONNECTION DIAGRAM

Model

ELECTROMAGNETIC BRAKE MOTOR TERMINAL BOX (3PHASE)

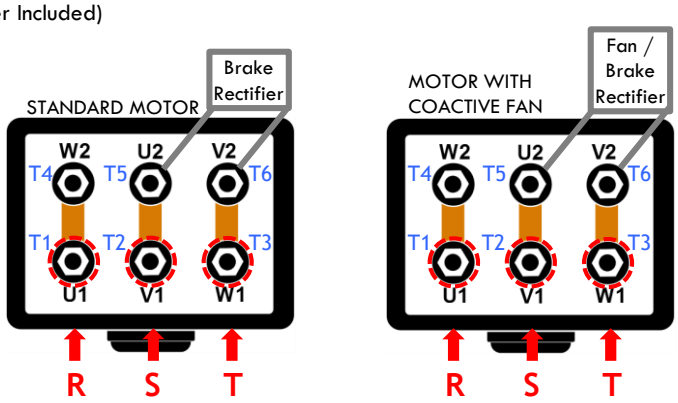
Motor Input Voltage : AC 3Ø 220~240V

Brake Input Voltage : AC 220~240V
(Build-in AC to DC Rectifier Included)

Coactive Fan Input Voltage : AC 220~240V

Direction of Rotation:
To change the rotation, exchange any two wires between U1, V1 and W1.

* If the motor is powered by an inverter or electronic soft starter, use Relay or separate Power Supply 220V for Brake Rectifier.



Model

ELECTROMAGNETIC BRAKE MOTOR TERMINAL BOX (3PHASE)

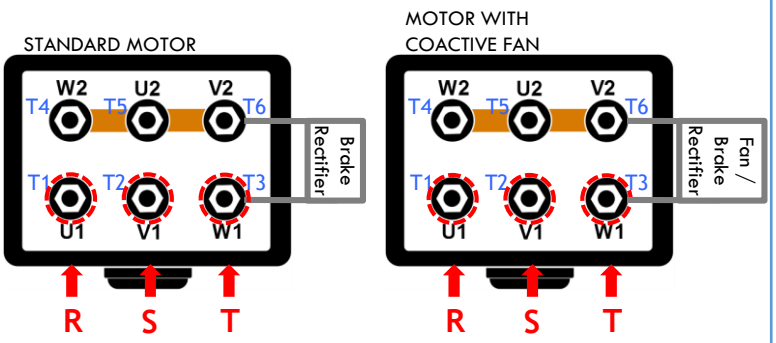
Motor Input Voltage : AC 3Ø 380~415V

Brake Input Voltage : AC 220~240V
(Build-in AC to DC Rectifier Included)

Coactive Fan Input Voltage : AC 220~240V

Direction of Rotation:
To change the rotation, exchange any two wires between U1, V1 and W1.

* If the motor is powered by an inverter or electronic soft starter, use Relay or separate Power Supply 220V for Brake Rectifier.



Operation :
Run/Stop: The brake systems are wired to the motor terminal block. When power is applied to the motor, the brake release (the motor stopped immediately by the electromagnetic brake and holds the load)

To release the brake while the motor is stopped, apply voltage between only two brake lead wires (yellow). The electromagnetic brake is release and the motor shaft can be rotated easily by hand.

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

CONNECTION DIAGRAM

Model — CLUTCH & BRAKE MOTOR (1PHASE)

Motor Input Voltage : AC 1Ø 100~110V ▪ 1Ø 220~240V

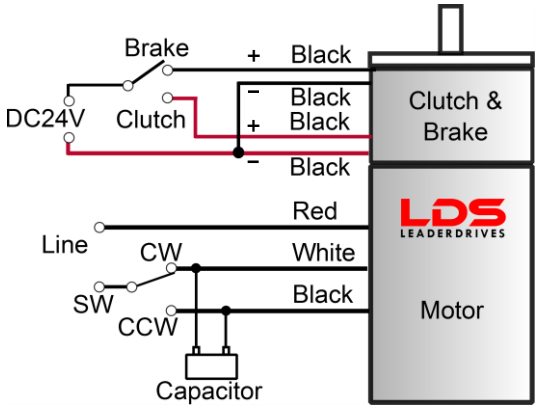
Clutch & Brake Input Voltage : DC 24V

Operation:
Use separate power supply for the motor (AC) and the clutch and brake (AC to DC).

When the motor is rotating, connect the switch to the clutch, the output shaft will start rotating and transmits power accordingly.

When the motor is rotating, connect the switch to the brake, it will stop instantly and hold great retention force.

When the DC power is off, the output shaft can rotate freely.



Model — CLUTCH & BRAKE MOTOR (3PHASE)

Motor Input Voltage : AC 3Ø 220~240V

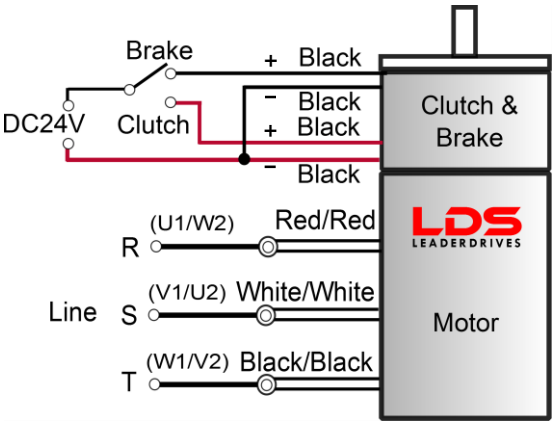
Clutch & Brake Input Voltage : DC 24V

Operation:
Use separate power source for the motor (AC) and the clutch and brake (AC to DC).

When the motor is rotating, connect the switch to the clutch, the output shaft will start rotating and transmits power accordingly.

When the motor is rotating, connect the switch to the brake, it will stop instantly and hold great retention force.

When the DC power is off, the output shaft can rotate freely.



Model — CLUTCH & BRAKE MOTOR (3PHASE)

Motor Input Voltage : AC 3Ø 380~415V

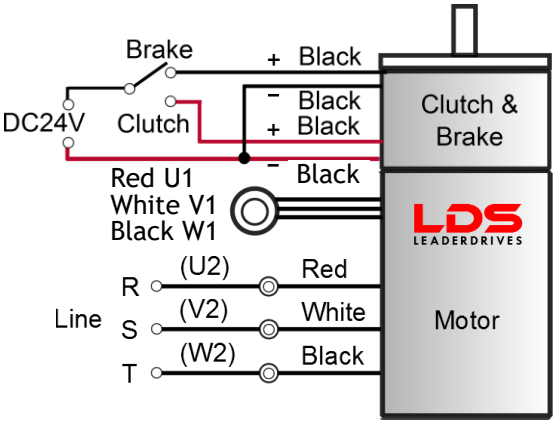
Clutch & Brake Input Voltage : DC 24V

Operation:
Use separate power source for the motor (AC) and the clutch and brake (AC to DC).

When the motor is rotating, connect the switch to the clutch, the output shaft will start rotating and transmits power accordingly.

When the motor is rotating, connect the switch to the brake, it will stop instantly and hold great retention force.

When the DC power is off, the output shaft can rotate freely.



Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

CONNECTION DIAGRAM

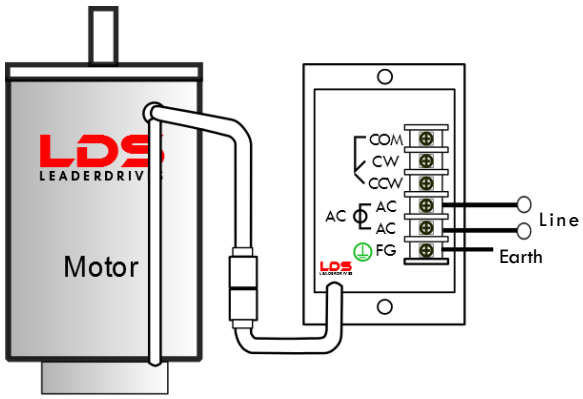
Model

VARIABLE SPEED MOTOR WITH US TYPE SPEED CONTROLLER (1PHASE)

Motor Input Voltage :	AC 1Ø 100~110V ▪ 1Ø 220~240V
Controller Input Voltage :	AC 1Ø 100~110V ▪ 1Ø 220~240V

Operation:
Connect the motor lead wires connectors to the control unit (speed controller). Then connect the power cord to the power source.

Direction of Rotation:
To change the rotation, switch COM-CW to COM-CCW connection, and vice versa.



Model

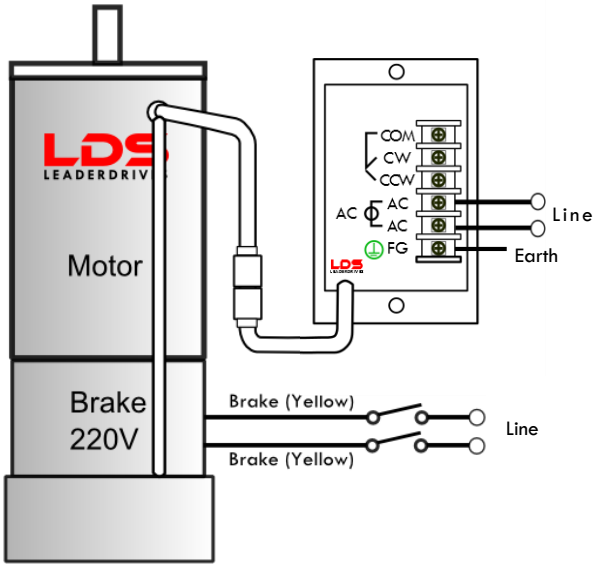
VARIABLE SPEED MOTOR WITH ELECTROMAGNETIC BRAKE AND USM TYPE SPEED CONTROLLER (1PHASE)

Motor Input Voltage :	AC 1Ø 100~110V ▪ 1Ø 220~240V
Controller Input Voltage :	AC 1Ø 100~110V ▪ 1Ø 220~240V
Brake Input Voltage :	AC 100~110V ▪ 220~240V (Build-in AC to DC Rectifier Included)

Operation:
Connect the motor lead wires connectors to the control unit (speed controller). Then connect the power cord to the power source.

Use Relay or separate Power Supply 110V/220V for the Brake Rectifier (Yellow Wire).

Direction of Rotation:
To change the rotation, switch COM-CW to COM-CCW connection, and vice versa.



Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

CONNECTION DIAGRAM

Model

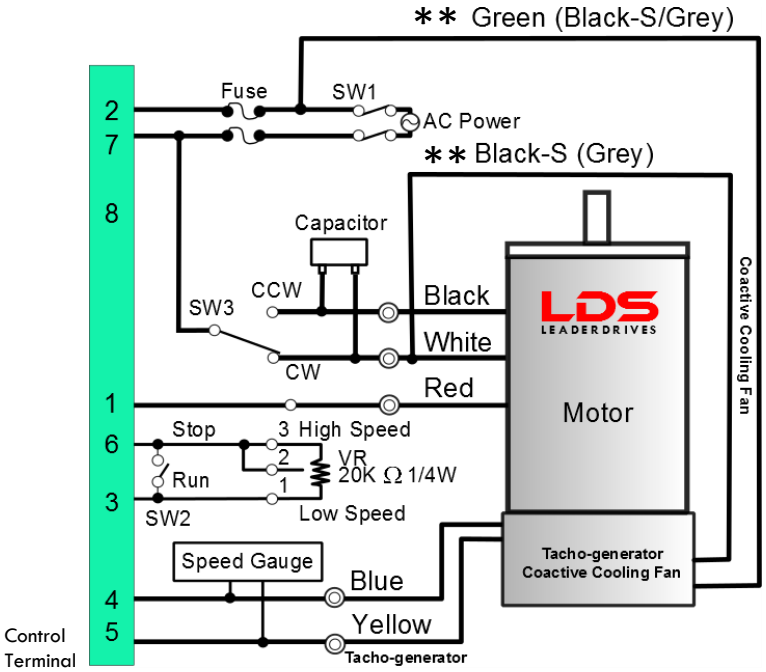
VARIABLE SPEED MOTOR WITH DIN RAIL TYPE SPEED CONTROLLER SS ▪ SD SERIES (8 PIN, 1PHASE)

Motor Input Voltage :
AC 1Ø 100~110V ▪
AC 1Ø 220~240V

Controller Input Voltage :
AC 1Ø 100~110V ▪
AC 1Ø 220~240V

Direction of Rotation:
To change the rotation, switch to CW or CCW connection (SW3).

** Connect Green wire and Black-S wire to respective terminal if u use LDS Extension Cable.



Model

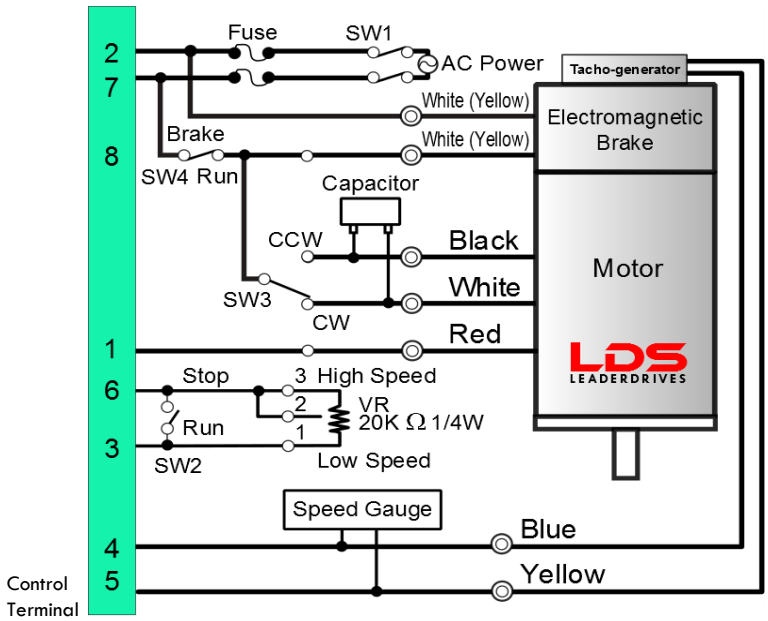
VARIABLE SPEED MOTOR WITH ELECTROMAGNETIC BRAKE AND DIN RAIL TYPE SPEED CONTROLLER SS ▪ SD SERIES (8 PIN, 1PHASE)

Motor Input Voltage :
AC 1Ø 100~110V ▪
AC 1Ø 220~240V

Controller Input Voltage :
AC 1Ø 100~110V ▪
AC 1Ø 220~240V

Brake Input Voltage :
AC 100~110V ▪
AC 220~240V
(Build-in AC to DC Rectifier Included)

Direction of Rotation:
To change the rotation, switch to CW or CCW connection (SW3).



Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

CONNECTION DIAGRAM

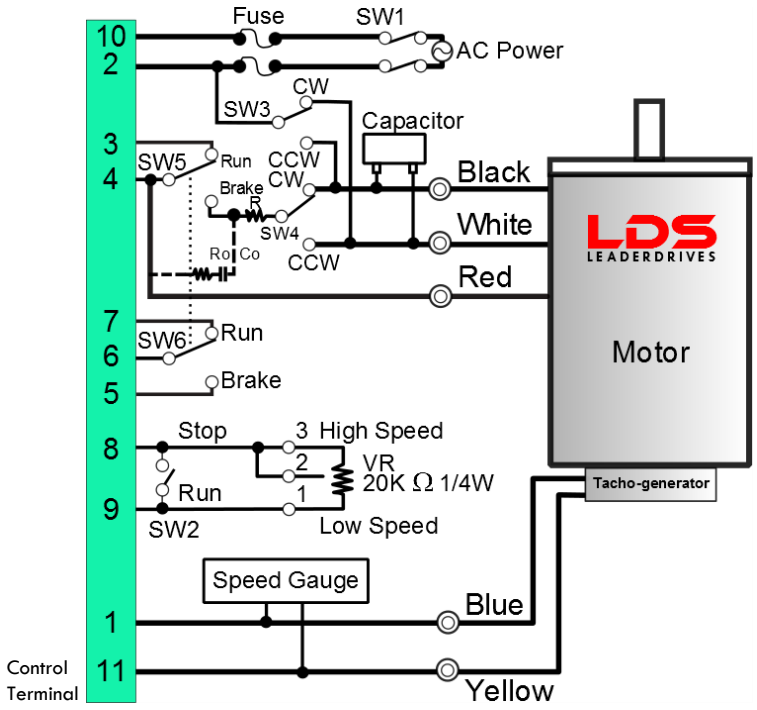
Model

VARIABLE SPEED MOTOR WITH BRAKE PACK SS31 ▪ SS32 SERIES (11 PIN, 1PHASE)

Motor Input Voltage :
AC 1Ø 100~110V ▪
AC 1Ø 220~240V ▪

Controller Input Voltage :
AC 1Ø 100~110V
AC 1Ø 220~240V

Direction of Rotation:
To change the rotation, switch to CW or CCW connection (SW3).



Model

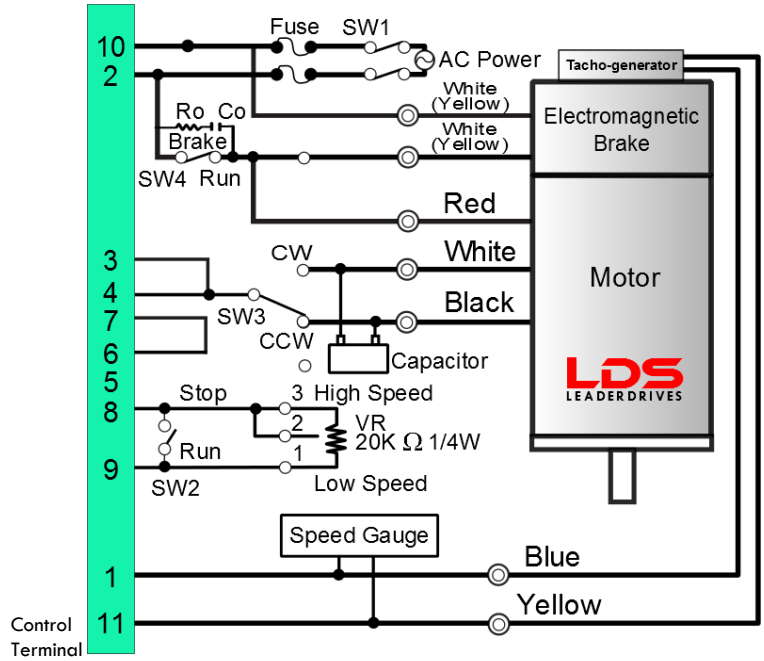
VARIABLE SPEED MOTOR WITH ELECTROMAGNETIC BRAKE AND BRAKE PACK SS31 ▪ SS32 SERIES (11 PIN, 1PHASE)

Motor Input Voltage :
AC 1Ø 100~110V ▪
AC 1Ø 220~240V

Controller Input Voltage :
AC 1Ø 100~110V ▪
AC 1Ø 220~240V

Brake Input Voltage :
AC 100~110V ▪
AC 220~240V
(Build-in AC to DC Rectifier Included)

Direction of Rotation:
To change the rotation, switch to CW or CCW connection (SW3).



Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

CONNECTION DIAGRAM

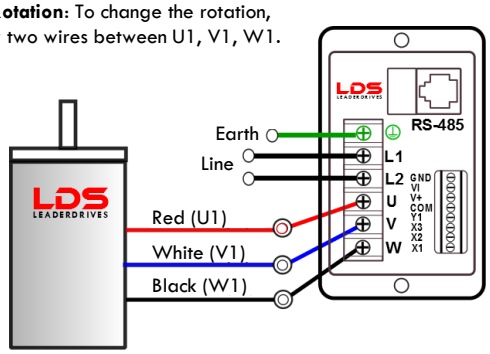
Model

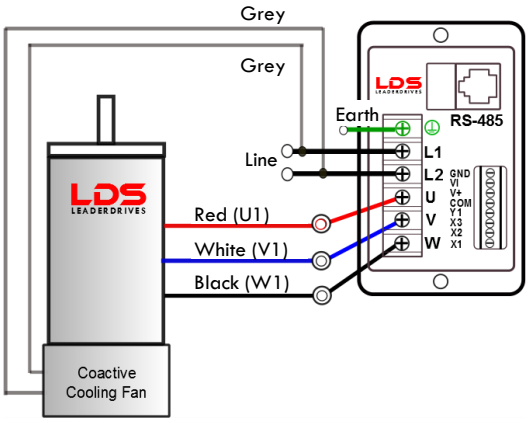
ASYNCHRONOUS MOTOR (3PHASE) WITH COMPACT IGBT INVERTER (1PHASE)

Motor Input Voltage : AC 3Ø 220~240V
Inverter Input Voltage : AC 1Ø 220~240V
Coactive Fan Input Voltage : AC 220~240V

MOTOR WITH 3 LEADWIRES

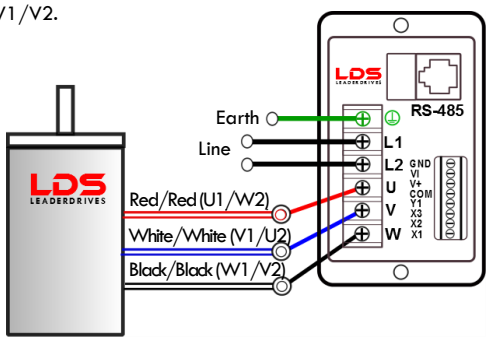
Direction of Rotation: To change the rotation, exchange any two wires between U1, V1, W1.

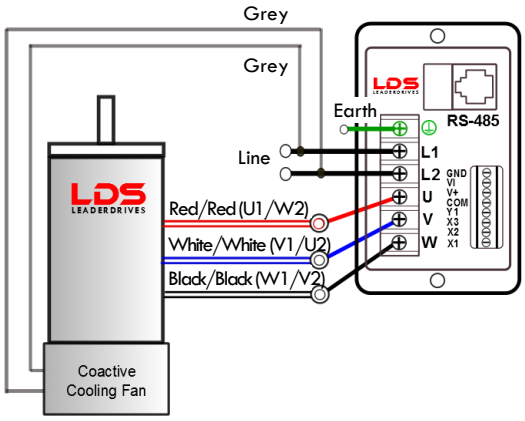




MOTOR WITH 6 LEADWIRES

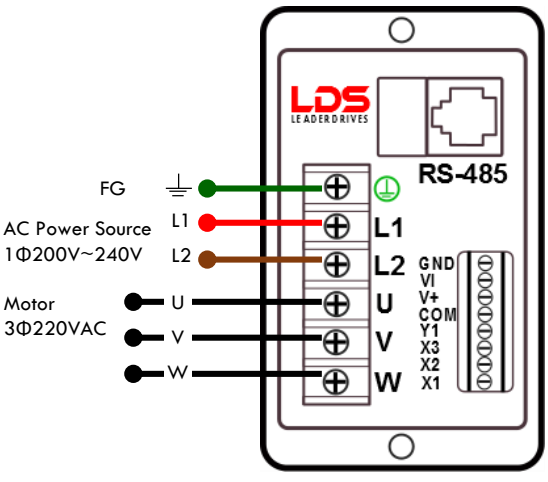
Direction of Rotation: To change the rotation, exchange any two wires between U1/W2, V1/U2 and W1/V2.



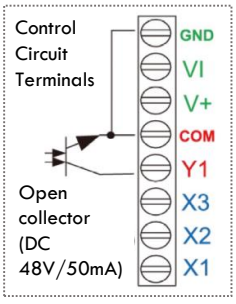


Model

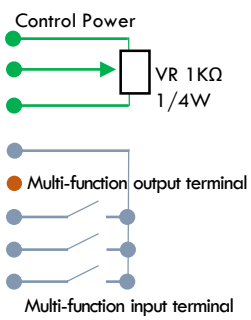
COMPACT IGBT INVERTER (1PHASE) MAIN CONTROL CIRCUIT TERMINALS



KP-601A/Modbus Port



Common terminal for analog input control
Analog input terminal
Power terminal for control signal
Input/output common terminal
Output Terminal 1
Input terminal 3
Input terminal 2
Input terminal 1



* Use Relay or separate Power Supply 220V for Brake Rectifier and Coactive Cooling Fan.

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

CONNECTION DIAGRAM

Model

ASYNCHRONOUS MOTOR (DELTA CONNECTION – 6WIRES)

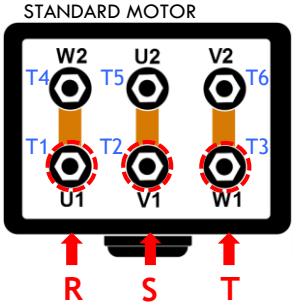
Motor Input Voltage : AC 3Ø 200~240V

Brake Input Voltage : AC 220~240V (Separate AC to DC Rectifier Included)

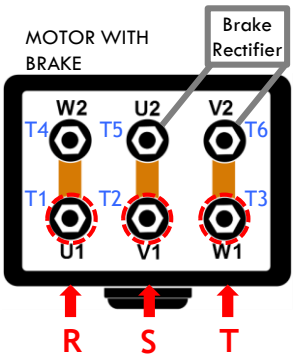
Direction of Rotation: To change the rotation, exchange any two wires between U1, V1, W1.

* If the motor is powered by an inverter or electronic soft starter, use Relay or separate Power Supply 220V for Brake Rectifier and Coactive Cooling Fan.

STANDARD MOTOR



MOTOR WITH BRAKE



Model

ASYNCHRONOUS MOTOR (STAR CONNECTION – 6WIRES)

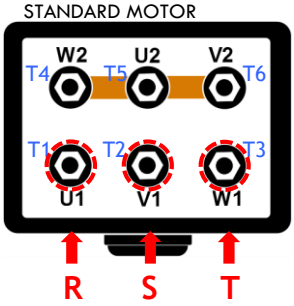
Motor Input Voltage : AC 3Ø 380~415V

Brake Input Voltage : AC 220~240V (Separate AC to DC Rectifier Included)

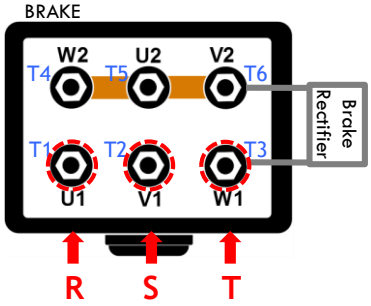
Direction of Rotation: To change the rotation, exchange any two wires between U1, V1, W1.

* If the motor is powered by an inverter or electronic soft starter, use Relay or separate Power Supply 220V for Brake Rectifier.

STANDARD MOTOR



MOTOR WITH BRAKE



Model

ASYNCHRONOUS MOTOR (STAR CONNECTION – 9WIRES)

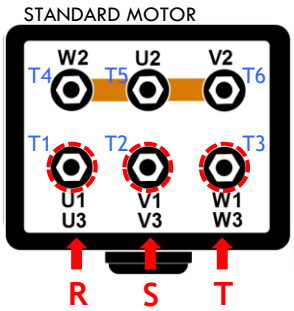
Motor Input Voltage : AC 3Ø 200~240V

Brake Input Voltage : AC 220~240V (Separate AC to DC Rectifier Included)

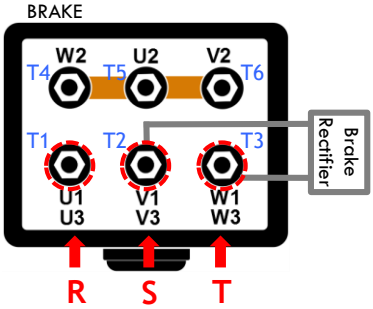
Direction of Rotation: To change the rotation, exchange any two wires between U1/U3, V1/V3 and W1/W3.

* If the motor is powered by an inverter or electronic soft starter, use Relay or separate Power Supply 220V for Brake Rectifier.

STANDARD MOTOR



MOTOR WITH BRAKE



Model

ASYNCHRONOUS MOTOR (9WIRES)

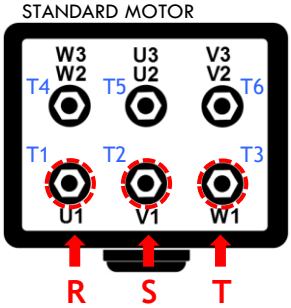
Motor Input Voltage : AC 3Ø 380~415V

Brake Input Voltage : AC 220~240V (Separate AC to DC Rectifier Included)

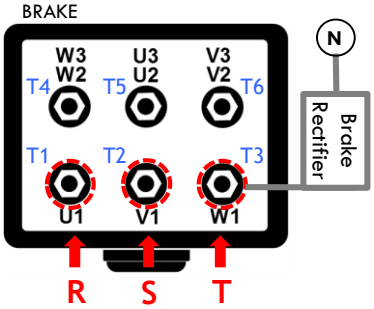
Direction of Rotation: To change the rotation, exchange any two wires between U1, V1, W1.

* If the motor is powered by an inverter or electronic soft starter, use Relay or separate Power Supply 220V for Brake Rectifier.

STANDARD MOTOR



MOTOR WITH BRAKE



Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement.

IGBT INVERTER

COMPACT INVERTER

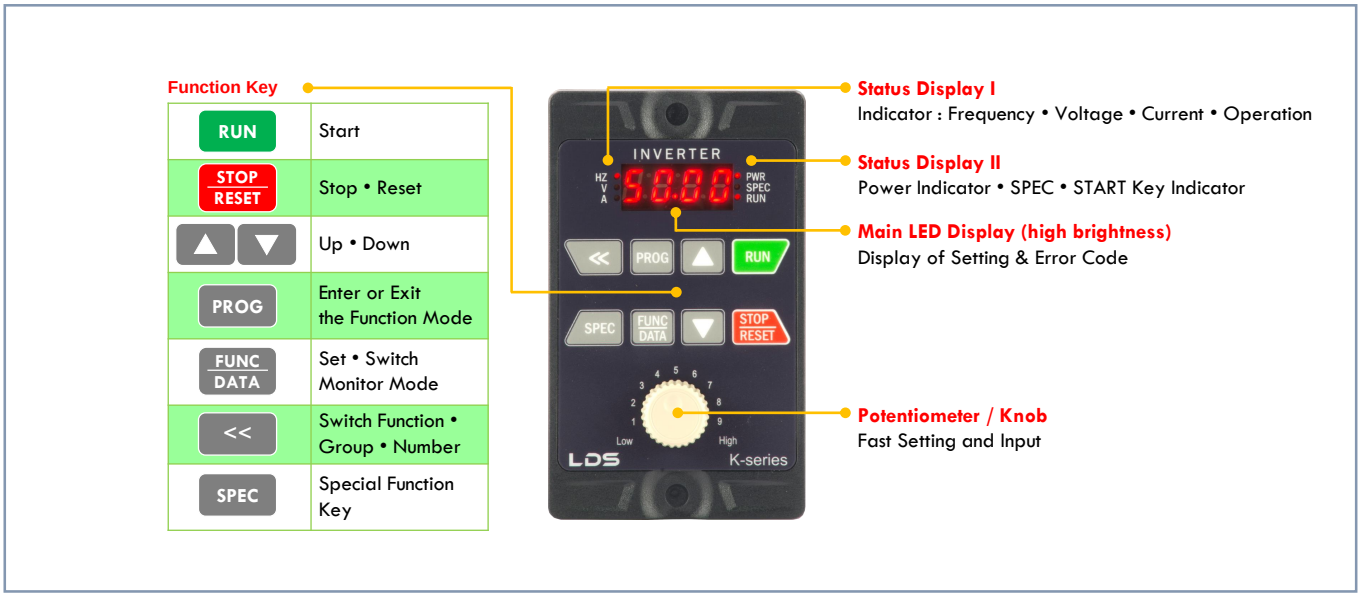
IGBT SERIES

1PHASE INVERTER
WITH 150% OVERLOAD PROTECTION

The compact IGBT inverter is especially advantageous for standard application by virtue of its user friendliness. It offers simple and safe operability, energy saving, compact design as well as superior performance. The inverter is use in numerous application such as conveyor drives, feeders, machining tool and door drives. It is compactible with Unit Type AC Speed Controller (US series).

MODEL NO	IGBT - K100	IGBT - K200
Motor Rating (maximum)	25W ~ 120W (1/6HP)	25W ~ 200W (1/4 HP)
Rated Output Capacity	0.4kVA	0.6kVA
Rated Output Current	1 Amp	1.5 Amp
Rated Output Voltage	AC 3 Phase 220V (3Ø220V)	
Range of Output Frequency	0.1Hz ~ 400Hz	
Power Source Voltage	AC 1 Phase 200V~240V (1Ø), 50Hz/60Hz	
Input Current	2 Amp	3 Amp
Permissible AC Power Source Fluctuation	200V ~ 240V, 50Hz/60Hz, ± 5%	
Overload Protection	150% of rated output current for 1 minute	
Cooling Method	Self-cooling	
Protection Level	IP20	
Dimension	Body 52 x 127 x 60mm • Mounting Frame: 60 x 100 x 3mm	
Weight	0.4KG	
Options	With Braking Transistor / Without Braking Transistor	
Remark	Product dimension and mounting compatible with US Type Speed Controller (USM71-USM72 / US71-US72)	

OPERATION PANEL



Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement. Comprehensive Product Manual of the Inverter available upon request.

COMPACT INVERTER

IGBT SERIES

1PHASE INVERTER
WITH 150% OVERLOAD PROTECTION

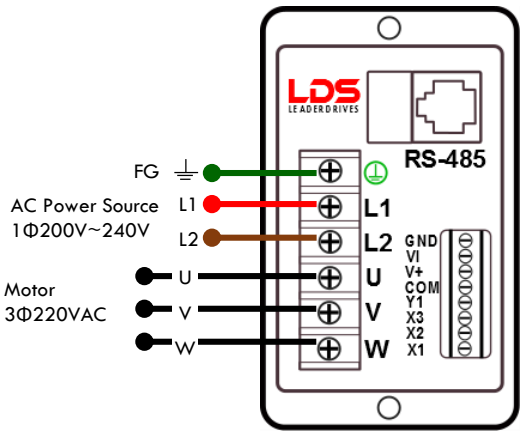
Features:

- 150% Overload Protection.
- Wide speed control range from 0-400Hz by operation panel or speed potentiometer.
- Spec-Key button on panel allows switch of 2 different speeds, forward/reverse operation instantly.
- Acceleration and Deceleration control enables soft-start and soft-stop operation.
- Setting of upper and lower speed limits, DC braking, and counter function.

GENERAL SPECIFICATIONS / CONTROL CHARACTERISTICS

Control Method:	Voltage vector sinusoidal PWM control (V/F control) Switching frequency : 800~16kHz	Other Functions:	Automatic operation for energy-saving • Automatic torque compensation • Automatic adjustment for output voltage stability • Automatic adjustment of switching frequency • Slip compensation / Counter function • Restart after instantaneous power failure • Modbus (RS-485) communication • Over-torque detection • Jump frequency • Setting for upper and lower limits of output frequency • 8-preset speeds • S-curve acceleration & deceleration • Temperature management • Parameters duplication
Frequency Range:	0.1Hz ~ 400.00Hz		
Resolution:	Digital Command : 0.01Hz • Analogue Command: 0.06Hz / 60Hz		
Overload Protection:	150% of rated output current for 1 minute		
DC Braking:	Start/Stop Braking Time: 0 ~ 60.0 second • Stop Braking Frequency : 0.1Hz ~ 60Hz • Braking Ability: 0~150% of rated current	Frequency Setting Signal:	Operation panel (including KP-601A keypad): ▲▼ Analogue Signal: (DC 0 ~ 10V) / 0~100% Digital Signal: Jog speed, 8-preset speeds Modbus (RS485) Communication
Braking Torque:	Approximately 20%	Operation Signal:	Operation panel (including KP-601A keypad): RUN / STOP • Digital Signal: FWD (forward) / REV (reverse) rotation control • Modbus (RS-485) communication
V/F Pattern:	Linear, Energy-Saving mode (automatic adjusting V/F pattern according to the load condition) • Square of 1.5, 1/7 and 2 curves. • V/F pattern (2 V/F points) • Output voltage adjustment of V/F pattern • (Variable voltage adjustment of V/F pattern for acceleration and deceleration).	Multi-Function Inputs:	3 programmable input terminal: X1~X3 • Response time (1~255, unit 1ms) • Refer to the F5.19~F5.21 functions setting description.
		Analogue Inputs:	1 set of analogue input: VI (DC 0 ~ 10V) • Analogue filter (0~255, unit 5ms), the dead band of analogue frequency, gain and bias are adjustable

MAIN CONTROL CIRCUIT TERMINALS



PORTABLE KEYPAD

The keypad

- Enable remote control of the inverter via Modbus (RS485) Communication.
- Duplication of parameter from Inverter to Inverter.

Acrylic Protective Cover

Note: The contents of this data sheet are subject to change without prior notice for the purpose of continuous product improvement. Comprehensive Product Manual of the Inverter available upon request.