REVERSIBLE MOTOR

90W □90mm LEAD WIRE TYPE TERMINAL BOX TYPE

K9RS90F□

K9RS90F□–T, T5

SPECIFICATIONS

90W continuous rating, four poles

Model		Voltage (V)	Frequency (Hz)	Current (A)	Start T. (N*m/ Kgf*Cm)	Rated T. (N*m/ Kgf*Cm)	Speed (rpm)	Condenser (μF)
K9R□90FJ(–T, –T5)	single –phase	100	50	2.52	0.6/6	0.705/7.05	1250	35
			60	2.42		0.57/5.7	1550	
K9R□90FU(–T, –T5)		110	60	1.88	0.55/5.5	0.57/5.7	1550	25
		115		2.12				
K9R□90FL(–T, –T5)		220	50	0.9	0.55/5.5	0.705/7.05	1250	8
			60	1.1		0.57/5.7	1550	
K9R□90FC(–T, –T5)		220	50	1	0.5/5	0.705/7.05	1250	7
			60	1.1	0.53/5.3	0.57/5.7	1550	
		230	50	1.3	0.6/6	0.705/7.05	1250	
			60	1.1		0.57/5.7	1550	
K9R□90FD(–T, –T5)		240	50	0.94	0.55/5.5	0.705/7.05	1250	6

□ : SHAFT SHAPE (S : STRAIGHT, G : PINION)

Models highlighted in Red are stocked at Gapp Automation

RATED TORQUE OF GEARHEAD

● 50Hz

unit = above : N · m / below : kgfcm

Model	Speed(rpm)	500	416	300	250	200	166	150	120	100	83	75	60	50	41	37	30	25	20	16	15	12.5	10	8.3	7.5
Motor/ Gearhead	Ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
K9R□90F□(–T, –T5)		1.71	2.06	2.86	3.43	4.28	5.14	5.71	6.42	7.71	9.25	10.28	11.56	13.88	16.65	18.5	20	20	20	20	20	20	20	20	20
K9P□B, BF		17.1	20.6	28.6	34.3	42.8	51.4	57.1	64.2	77.1	92.5	102.8	115.6	138.8	166.5	185.0	200	200	200	200	200	200	200	200	200

● 60Hz

Models highlighted in Red are stocked at Gapp Automation

unit = above : N · m / below : kgfcm

Model	Speed(rpm)	600	500	360	300	240	200	180	144	120	100	90	72	60	50	45	36	30	24	20	18	15	12	10	9
Motor/ Gearhead	Ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
K9R□90F□(–T, –T5)		1.39	1.66	2.31	2.77	3.46	4.16	4.62	5.19	6.23	7.48	8.31	9.35	11.22	13.46	14.96	18.7	20	20	20	20	20	20	20	20
K9P□B, BF		13.9	16.6	23.1	27.7	34.6	41.6	46.2	51.9	62.3	74.8	83.1	93.5	112.2	134.6	149.6	187	200	200	200	200	200	200	200	200

Models highlighted in Red are stocked at Gapp Automation

* Gearhead and decimal gearhead are sold separately.
* The code in □ of gearhead model is for gear ratio.
* ▬ color indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. Others indicate rotation in the opposite direction.
* If you are to have less ratio than the ratio in the table, you can install the decimal gearhead, which has one tenth of the ratio, between the gearhead and the motor. In this case, the permissible torque is 20N · m/200kgfcm.
* RPM is based on motor's synchronous rpm (50HZ:1500rpm, 60HZ:1800rpm) and calculated by dividing gear ratio. Actual rpm is 2~20% less than indicating rpm according to load size.

GEARHEADS

RATED TORQUE OF GEARHEAD

● 50Hz

unit = above : N·m / below : kgfcm

Model	Speed(rpm)	500	416	300	250	200	166	150	120	100	83	75	60	50	41	37	30	25	20	16	15	13	10	8.3	7.5
Motor/ Gearhead	Ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
K9R□90F□(–T, –T5)		1.71	2.06	2.86	3.43	4.28	5.14	5.71	6.42	7.71	9.25	10.28	11.56	13.88	16.65	18.50	23.13	27.75	30	30	30	30	30	30	30
K9RP□BU, BUF		17.1	20.6	28.6	34.3	42.8	51.4	57.1	64.2	77.1	92.5	102.8	115.6	138.8	165.6	185.0	231.3	277.5	300	300	300	300	300	300	300

Models highlighted in Red are stocked at Gapp Automation

● 60Hz

unit = above : N·m / below : kgfcm

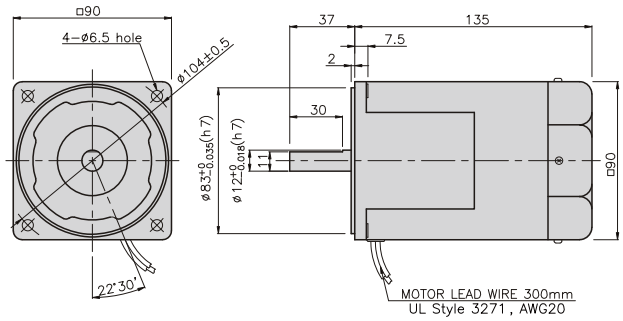
Model	Speed(rpm)	600	500	360	300	240	200	180	144	120	100	90	72	60	50	45	36	30	24	20	18	15	12	10	9
Motor/ Gearhead	Ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
K9R□90F□(–T, –T5)		1.39	1.66	2.31	2.77	3.46	4.16	4.62	5.19	6.23	7.48	8.31	9.35	11.22	13.46	14.96	18.70	22.44	25.24	30	30	30	30	30	30
K9RP□BU, BUF		13.9	16.6	23.1	27.7	34.6	41.6	46.2	51.9	62.3	74.8	83.1	93.5	112.2	134.6	149.6	187.0	224.4	252.4	300	300	300	300	300	300

Models highlighted in Red are stocked at Gapp Automation

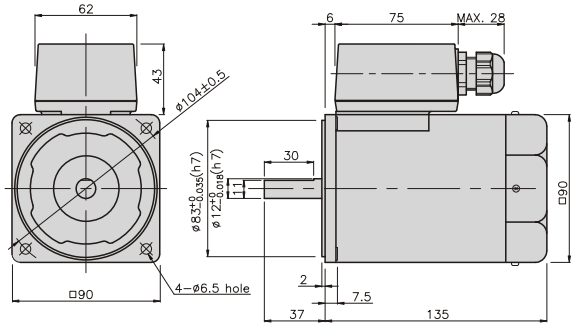
* Gearhead and decimal gearhead are sold separately.
* The code in □ of gearhead model is for gear ratio.
* ▭ color indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. Others indicate rotation in the opposite direction.
* If you are to have less ratio than the ratio in the table, you can install the decimal gearhead, which has one tenth of the ratio, between the gearhead and the motor. In this case, the permissible torque is 30N · m/300kgfcm.
* RPM is based on motor's synchronous rpm (50HZ:1500rpm, 60HZ:1800rpm) and calculated by dividing gear ratio. Actual rpm is 2~20% less than indicating rpm according to load size.

DIMENSIONS

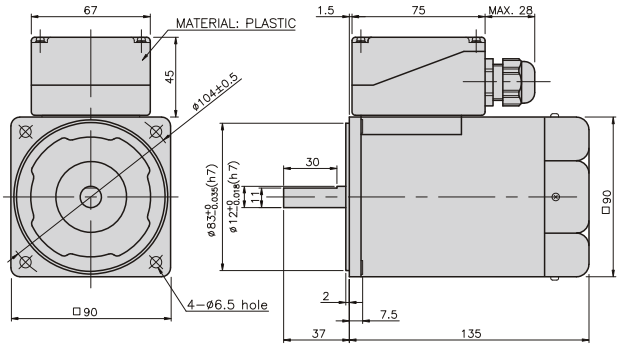
K9RS90F□



K9RS90F□–T



K9RS90F□–T5

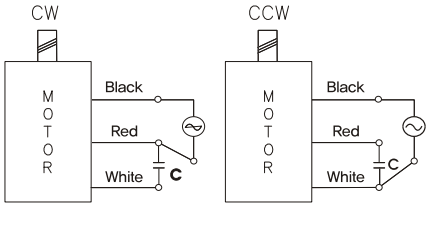


GEARHEADS

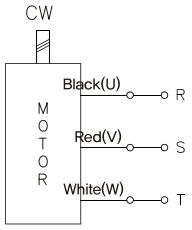
CONNECTION DIAGRAMS

K9RS90F□

single phase motor



three phase motor

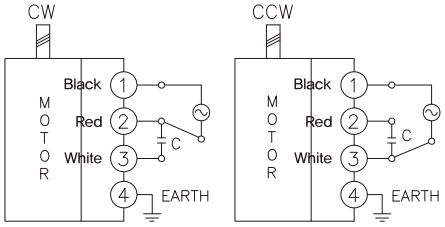


connecting two leadwires of U,V,W in turns

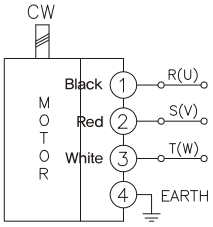
The direction of motor rotation is as viewed from the front shaft end of the motor

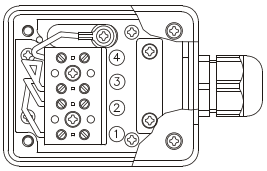
K9RS90F□-T

single phase motor



three phase motor

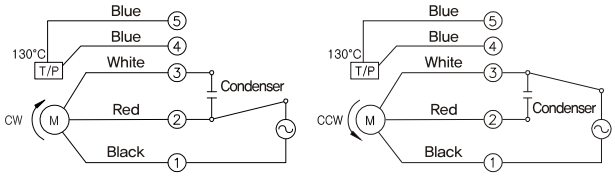




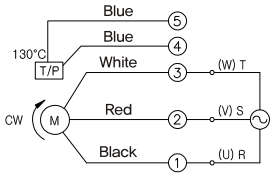
The direction of motor rotation is as viewed from the front shaft end of the motor

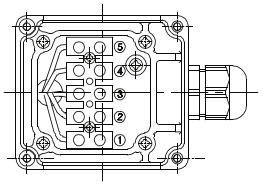
K9RS90F□-T5

single phase motor



three phase motor





connecting two leadwires of U,V,W in turns

The direction of motor rotation is as viewed from the front shaft end of the motor

GEARHEADS

DIMENSIONS

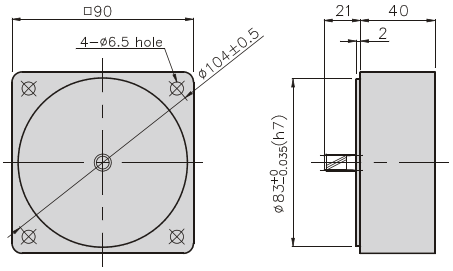
K9P□B

K9P□BF, BUF

K9P□BU

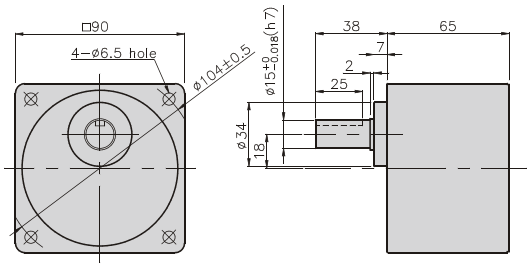
DECIMAL GEARHEAD

K9P10BX



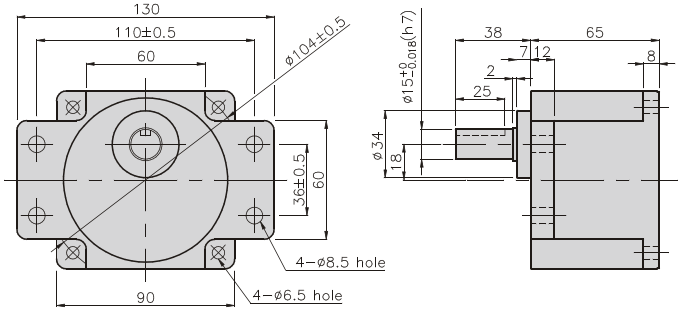
GEAR HEAD

K9P□B



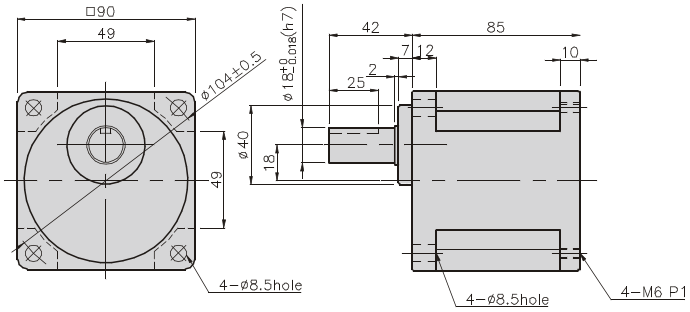
GEARHEAD

K9P□BF



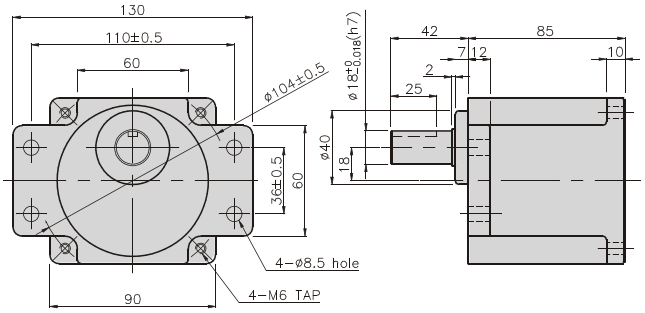
GEARHEAD

K9P□BU-K6



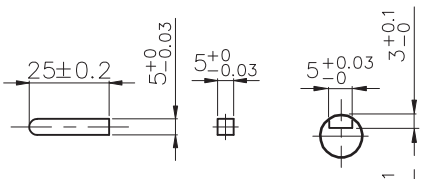
GEARHEAD

K9P□BUF-K6

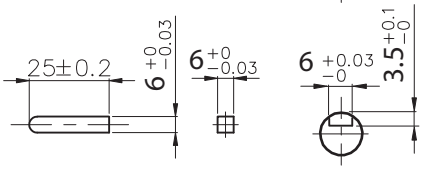


KEY SPEC

K9P□B
K9P□BF



K9P□BU-K6
K9P□BUF-K6



GEARHEADS

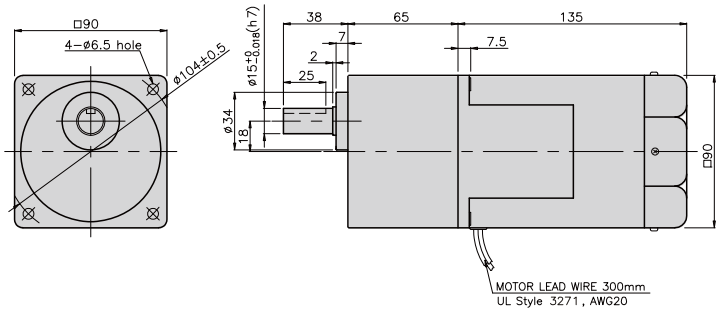
DIMENSIONS

K9RP90F□ + K9P□B

K9RP90F□ + K9P□BF, BUF

K9RP90F□ + K9P□BU

K9RP90F□ + K9P□B



WEIGHT

PART	WEIGHT(kg)
MOTOR	3.00
DECIMAL GEAR HEAD	0.62

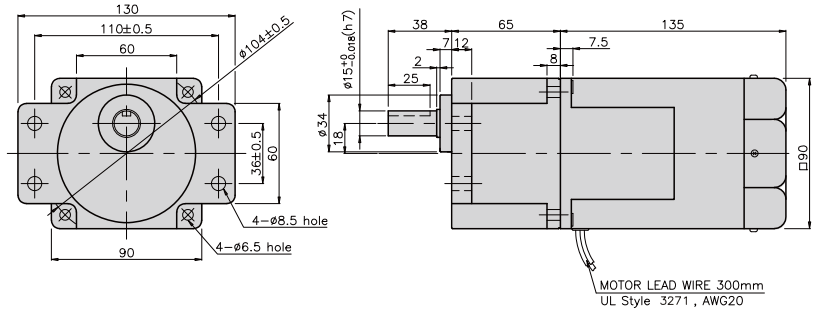
DIMENSION TABLE

PART No	L	Application Model	Mounting BOLT
01	65	K9P3~200B	M6 P1.0 X 95
02	40	K9P10BX	M6 P1.0 X 140

WEIGHT

PART	WEIGHT(kg)
K9P3~10B	1.22
K9P12.5~20B	1.32
K9P25~60B	1.42
K9P75~200B	1.45

K9RP90F□ + K9P□BF



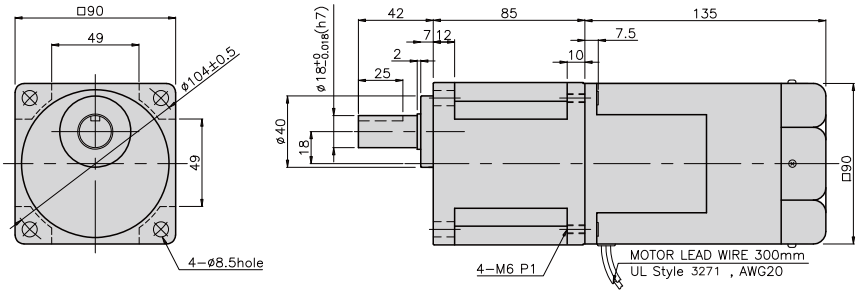
DIMENSION TABLE

PART No	L	Application Model	Mounting BOLT
01	65	K9P3~200BF	M6 P1.0 X 25
02	40	K9P10BX	M6 P1.0 X 65

WEIGHT

PART	WEIGHT(kg)
K9P3~10BF	1.22
K9P12.5~20BF	1.30
K9P25~60BF	1.42
K9P75~200BF	1.44

K9RP90F□ + K9P□BU



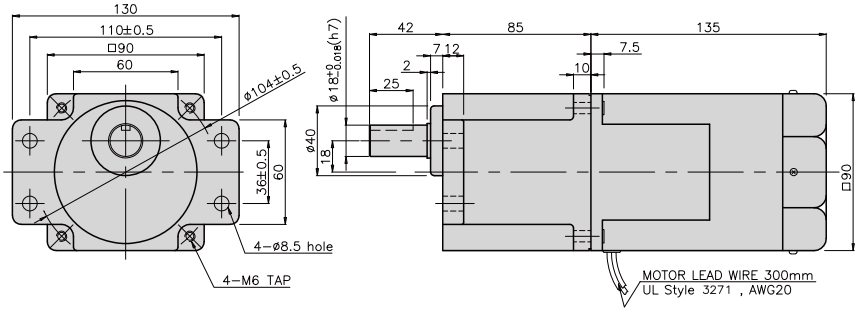
DIMENSION TABLE

PART No	L	Application Model	Mounting BOLT
01	85	K9P3~200BU	M6 P1.0 X 20
02	40	K9P10BX	M6 P1.0 X 60

WEIGHT

PART	WEIGHT(kg)
K9P3~10BU	1.44
K9P12.5~20BU	1.55
K9P25~60BU	1.69
K9P75~200BU	1.74

K9RP90F□ + K9P□BUF



DIMENSION TABLE

PART No	L	Application Model	Mounting BOLT
01	85	K9P3~200BUF	M6 P1.0 X 20
02	40	K9P10BX	M6 P1.0 X 65

WEIGHT

PART	WEIGHT(kg)
K9P3~10BUF	1.50
K9P12.5~20BUF	1.62
K9P25~60BUF	1.76
K9P75~200BUF	1.82

GEARHEADS

DIMENSIONS

K9RP90F□-T + K9P□B

K9RP90F□-T + K9P□BF, BUF

K9RP90F□-T + K9P□BU

WEIGHT

PART	WEIGHT(kg)
MOTOR	3.18
DECIMAL GEAR HEAD	0.62

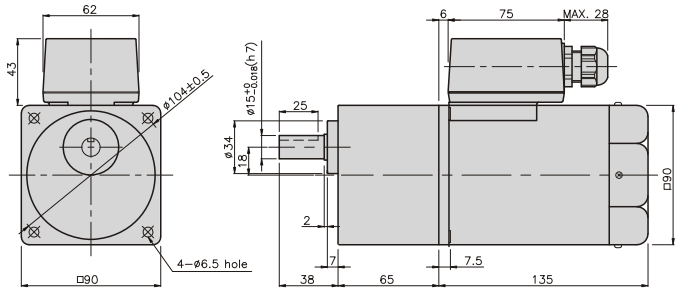
DIMENSION TABLE

PART No	L	Application Model	Mounting BOLT
01	65	K9P3~200B	M6 P1.0 X 95
02	40	K9P10BX	M6 P1.0 X 140

WEIGHT

PART	WEIGHT(kg)
K9P3~10B	1.22
K9P12.5~20B	1.32
K9P25~60B	1.42
K9P75~200B	1.45

K9RP90F□-T + K9P□B



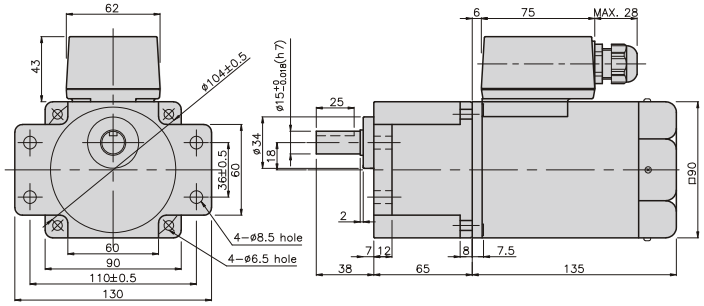
DIMENSION TABLE

PART No	L	Application Model	Mounting BOLT
01	65	K9P3~200BF	M6 P1.0 X 25
02	40	K9P10BX	M6 P1.0 X 65

WEIGHT

PART	WEIGHT(kg)
K9P3~10BF	1.22
K9P12.5~20BF	1.30
K9P25~60BF	1.42
K9P75~200BF	1.44

K9RP90F□-T + K9P□BF



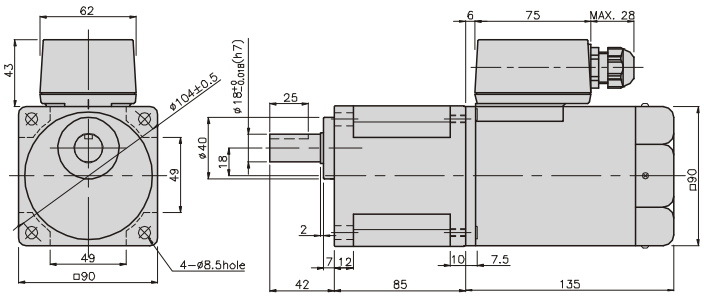
DIMENSION TABLE

PART No	L	Application Model	Mounting BOLT
01	85	K9P3~200BU	M6 P1.0 X 20
02	40	K9P10BX	M6 P1.0 X 60

WEIGHT

PART	WEIGHT(kg)
K9P3~10BU	1.44
K9P12.5~20BU	1.55
K9P25~60BU	1.69
K9P75~200BU	1.74

K9RP90F□-T + K9P□BU



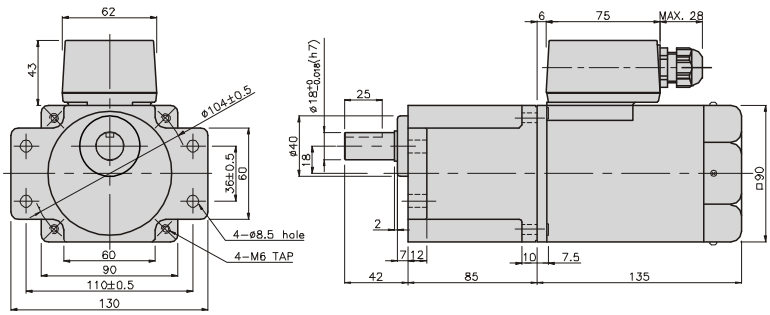
DIMENSION TABLE

PART No	L	Application Model	Mounting BOLT
01	85	K9P3~200BUF	M6 P1.0 X 20
02	40	K9P10BX	M6 P1.0 X 65

WEIGHT

PART	WEIGHT(kg)
K9P3~10BUF	1.50
K9P12.5~20BUF	1.62
K9P25~60BUF	1.76
K9P75~200BUF	1.82

K9RP90F□-T + K9P□BUF



GEARHEADS

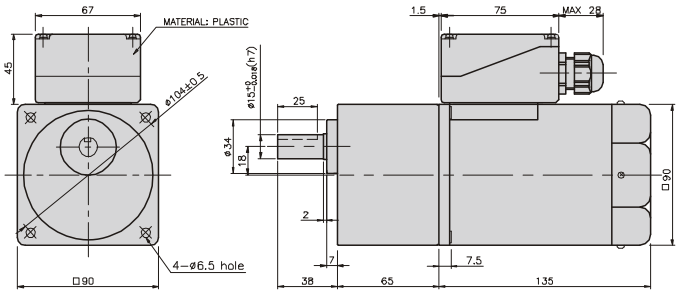
DIMENSIONS

K9RP90F□-T5 + K9P□B

K9RP90F□-T5 + K9P□BF, BUF

K9RP90F□-T5 + K9P□BU

K9RP90F□-T5 + K9P□B



WEIGHT

PART	WEIGHT(kg)
MOTOR	3.18
DECIMAL GEAR HEAD	0.62

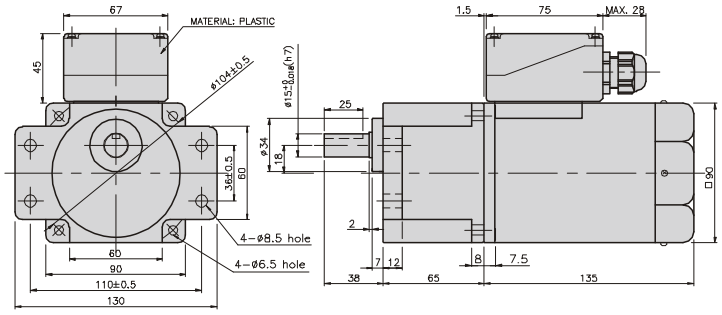
DIMENSION TABLE

PART No	L	Application Model	Mounting BOLT
01	65	K9P3~200B	M6 P1.0 X 95
02	40	K9P10BX	M6 P1.0 X 140

WEIGHT

PART	WEIGHT(kg)
K9P3~10B	1.22
K9P12.5~20B	1.32
K9P25~60B	1.42
K9P75~200B	1.45

K9RP90F□-T5 + K9P□BF



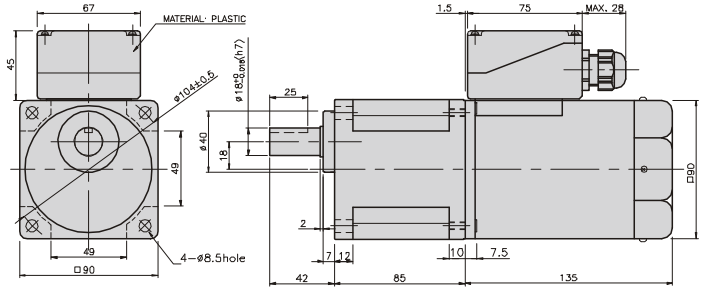
DIMENSION TABLE

PART No	L	Application Model	Mounting BOLT
01	65	K9P3~200BF	M6 P1.0 X 25
02	40	K9P10BX	M6 P1.0 X 65

WEIGHT

PART	WEIGHT(kg)
K9P3~10BF	1.22
K9P12.5~20BF	1.30
K9P25~60BF	1.42
K9P75~200BF	1.44

K9RP90F□-T5 + K9P□BU



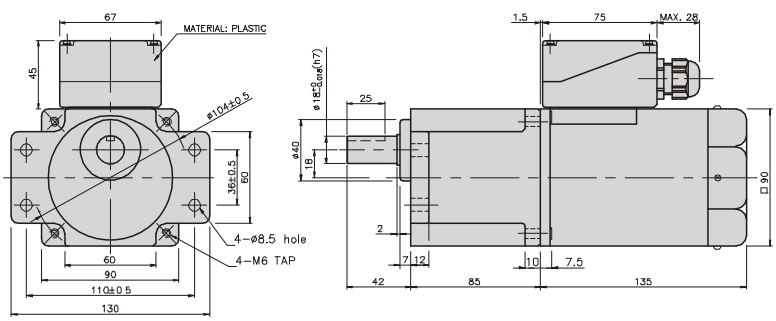
DIMENSION TABLE

PART No	L	Application Model	Mounting BOLT
01	85	K9P3~200BU	M6 P1.0 X 20
02	40	K9P10BX	M6 P1.0 X 60

WEIGHT

PART	WEIGHT(kg)
K9P3~10BU	1.44
K9P12.5~20BU	1.55
K9P25~60BU	1.69
K9P75~200BU	1.74

K9RP90F□-T5 + K9P□BUF



DIMENSION TABLE

PART No	L	Application Model	Mounting BOLT
01	85	K9P3~200BUF	M6 P1.0 X 20
02	40	K9P10BX	M6 P1.0 X 65

WEIGHT

PART	WEIGHT(kg)
K9P3~10BUF	1.50
K9P12.5~20BUF	1.62
K9P25~60BUF	1.76
K9P75~200BUF	1.82