

## INDUCTION MOTOR

**90W**

**□90mm** **LEAD WIRE TYPE**  
**TERMINAL BOX TYPE**

K9IS90F□



K9IS90F□-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)	
K9I□90FJ(-T, -T5)	single-phase	100	50	2.07	0.55/5.5	0.675/6.75	1300	30	
			60	1.97		0.55/5.5	1600		
K9I□90FU(-T, -T5)		110	60	50	1.47	0.44/4.4	0.55/5.5	1600	20
				60	1.52				
K9I□90FL(-T, -T5)		200	50	50	0.75	0.5/5	0.675/6.75	1300	7
				60	0.97		0.57/5.7	1550	
K9I□90FC(-T, -T5)		220	50	50	0.8	0.45/4.5	0.675/6.75	1300	6
				60	0.9	0.5/5	0.57/5.7	1550	
			230	50	0.87	0.55/5.5	0.675/6.75	1300	
				60	0.93		0.57/5.7	1550	
K9I□90FD(-T, -T5)	240	50	0.85	0.5/5	0.675/6.75	1300	5		
K9I□90FT(-T, -T5)	three-phase	200	50	0.79	2.25/22.5	0.65/6.5	1350	-	
			60	0.72	1.75/17.5	0.55/5.5	1600		
K9I□90FH(-T, -T5)		220	50	50	0.72	2.35/23.5	0.65/6.5	1350	-
				60	0.63	1.8/18	0.55/5.5	1600	
K9I□90FH(-T, -T5)		230	50	50	0.86	2.45/24.5	0.65/6.5	1350	-
				60	0.66	1.95/19.5	0.55/5.5	1600	
K9I□90FM(-T, -T5)		380	50	50	0.43	2.35/23.5	0.65/6.5	1350	-
				60	0.37	1.7/17	0.55/5.5	1600	
K9I□90FV(-T, -T5)		400	50	50	0.52	2.65/26.5	0.65/6.5	1350	-
				60	0.45	2.1/21	0.55/5.5	1600	
K9I□90FQ(-T, -T5)	415	50	50	0.39	2/20	0.68/6.8	1300	-	
			60	0.31	1.5/15	0.55/5.5	1600		
K9I□90FZ(-T, -T5)	440	50	50	0.45	2.1/21	0.68/6.8	1300	-	
			60	0.39	1.7/17	0.55/5.5	1600		

\* □ : SHAFT SHAPE (S : STRAIGHT, P : PINION) \* FU, FC, FH, FH-T, FH-T5 which are in end of the model name is UL certified ones.  
UL FILE NO. E204632 \* 3 phase motor for over 380 voltage can't be used with inverter. Motor winding insulation can be damaged.

### RATED TORQUE OF GEARHEAD

#### ● 50Hz

unit = above : N·m / below : Kgf·cm

Model Motor/ Gearhead	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
	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
K9I□90F□(-T, -T5) K9P□B, BF	1.58	1.90	2.63	3.16	3.95	4.74	5.27	5.92	7.11	8.53	9.48	10.66	12.79	15.35	17.06	20	20	20	20	20	20	20	20	20	20
	15.8	19.0	26.3	31.6	39.5	47.4	52.7	59.2	71.1	85.3	94.8	106.6	127.9	153.5	170.6	200	200	200	200	200	200	200	200	200	200

#### ● 60Hz

unit = above : N·m / below : Kgf·cm

Model Motor/ Gearhead	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
	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
K9I□90F□(-T, -T5) K9P□B, BF	1.34	1.60	2.23	2.67	3.34	4.01	4.46	5.01	6.01	7.22	8.02	9.02	10.83	12.99	14.43	18.04	20	20	20	20	20	20	20	20	20
	13.4	16.0	22.3	26.7	33.4	40.1	44.6	50.1	60.1	72.2	80.2	90.2	108.3	129.9	144.3	180.4	200	200	200	200	200	200	200	200	200

\* 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/200kgf·cm.

\* 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.

## GEARHEAD

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● 50Hz

unit = above : N·m / below : Kg·cm

Model Motor/ Gearhead	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
	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
K9I□90F□(-T, T5) K9P□BU, BUF		1,58	1,90	2,63	3,16	3,95	4,74	5,27	5,92	7,11	8,53	9,48	10,66	12,79	15,35	17,06	21,32	25,59	30	30	30	30	30	30	30
		15,8	19,0	26,3	31,6	39,5	47,4	52,7	59,2	71,1	85,3	94,8	106,6	127,9	153,5	170,6	213,2	255,9	300	300	300	300	300	300	300

● 60Hz

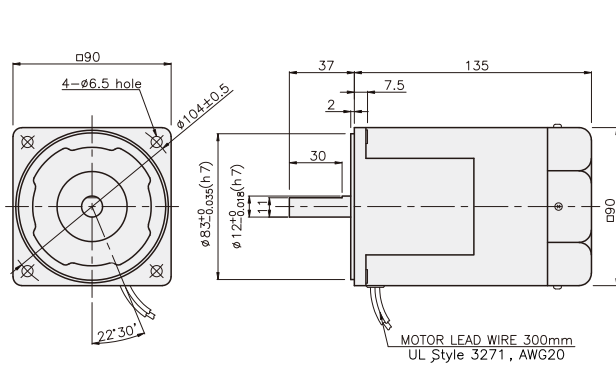
unit = above : N·m / below : Kg·cm

Model Motor/ Gearhead	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
	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
K9I□90F□(-T, T5) K9P□BU, BUF		1,34	1,60	2,23	2,67	3,34	4,01	4,46	5,01	6,01	7,22	8,02	9,02	10,83	12,99	14,43	18,04	21,65	24,36	29,23	30	30	30	30	30
		13,4	16,0	22,3	26,7	33,4	40,1	44,6	50,1	60,1	72,2	80,2	90,2	108,3	129,9	144,3	180,4	216,5	243,6	292,3	300	300	300	300	300

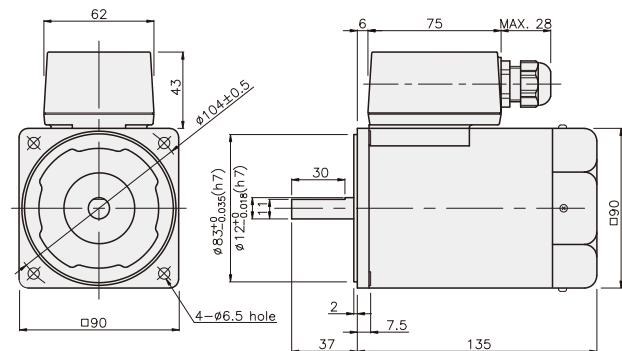
- \* Gearhead and decimal gearhead are sold separately.
- \* The code in □ of gearhead model is for gear ratio.
- \*  color indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. Others indicate rotation in the opposite direction.
- \* If you 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 / 300kg·cm.
- \* 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

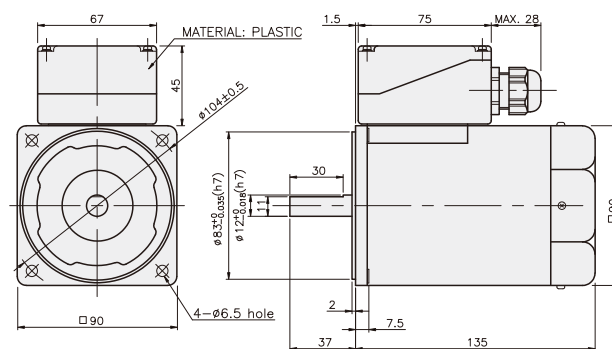
K9IS90F□



K9IS90F□-T



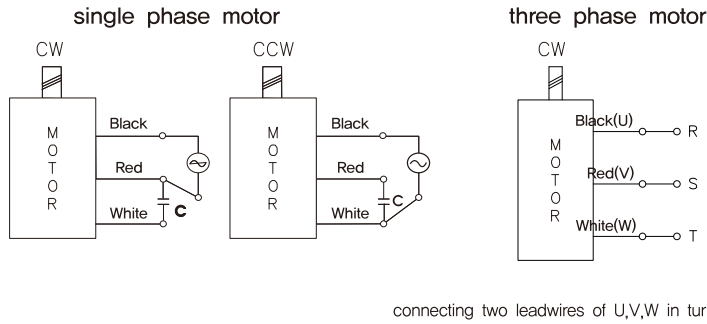
K9IS90F□-T5



## GEARHEAD

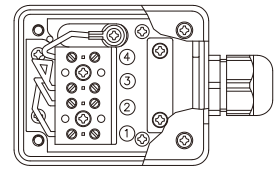
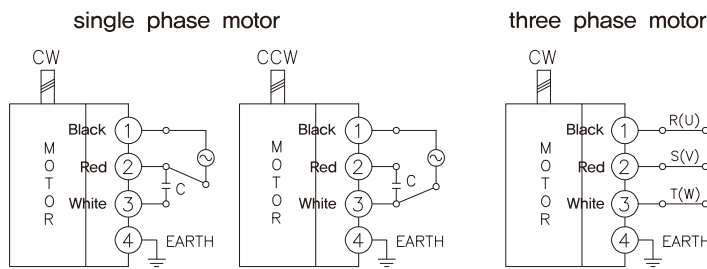
### CONNECTION DIAGRAMS

K9IS90F □



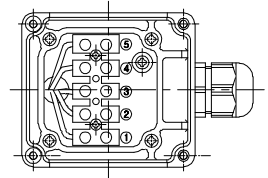
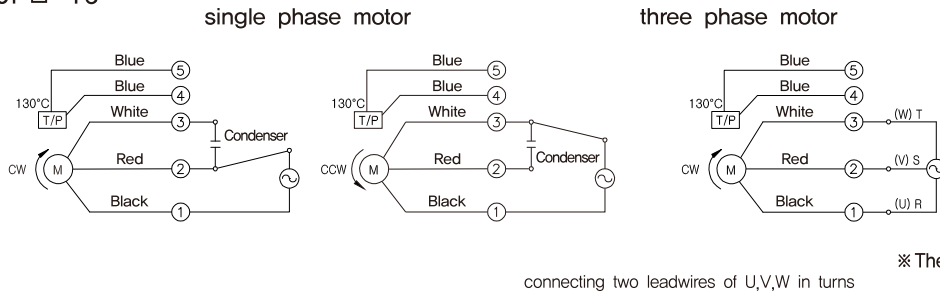
※The direction of motor rotation is as viewed from the front shaft end of the motor

K9IS90F □-T



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

K9IS90F □-T5



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

## GEARHEAD

### DIMENSIONS

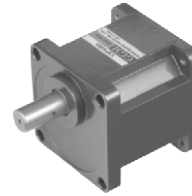
K9P□B



K9P□BF, BUF

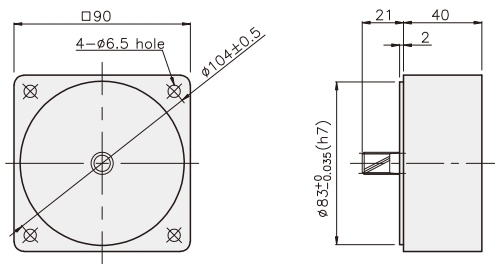


K9P□BU

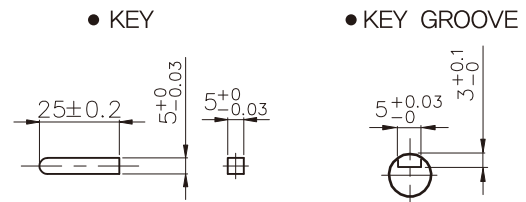


### DECIMAL GEARHEAD

K9P10BX

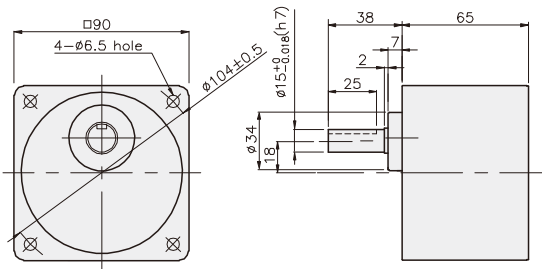


### KEY SPEC

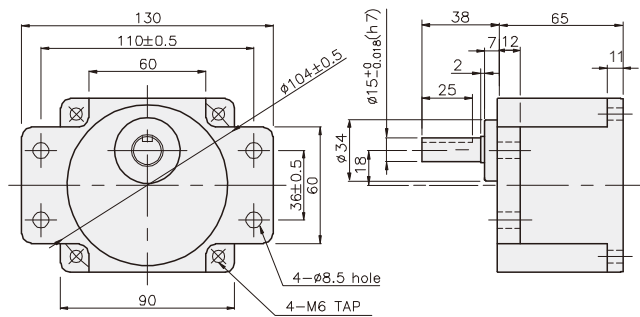


### GEARHEAD

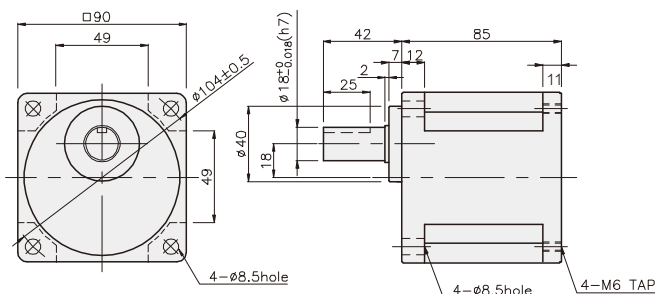
K9P□B



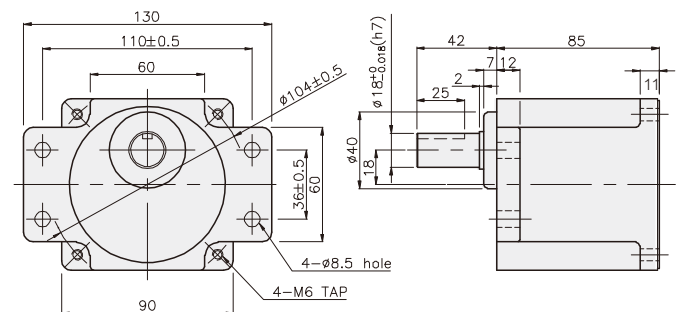
K9P□BF



K9P□BU



K9P□BUF



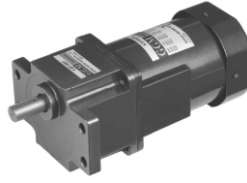
## GEARHEAD

### DIMENSIONS

K9IP90F□ + K9P□B



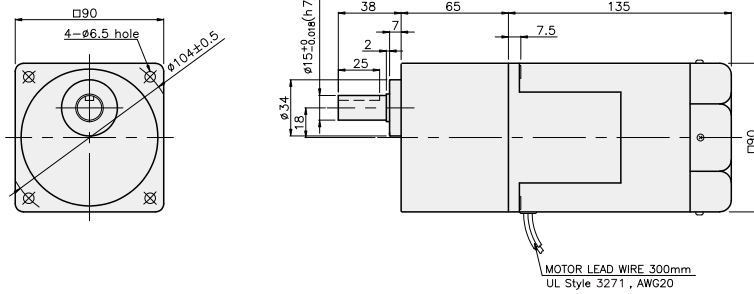
K9IP90F□ + K9P□BF, BUF



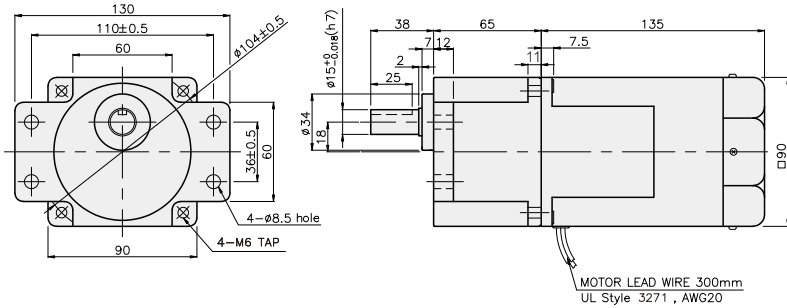
K9IP90F□ + K9P□BU



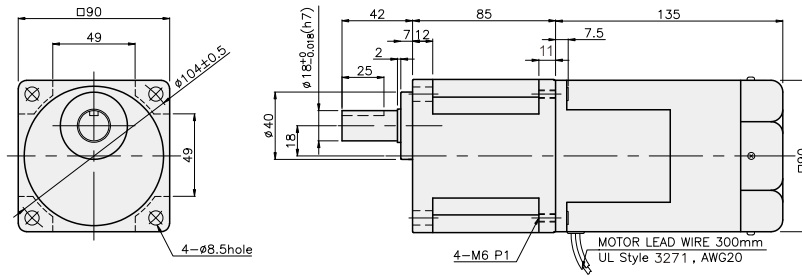
K9IP90F□ + K9P□B



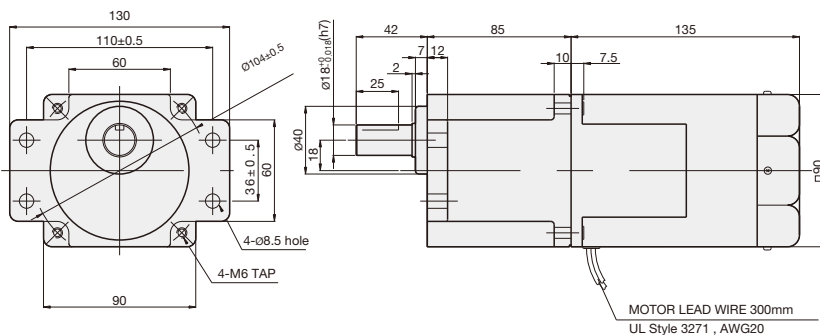
K9IP90F□ + K9P□BF



K9IP90F□ + K9P□BU



K9IP90F□ + K9P□BUF



#### WEIGHT

PART	WEIGHT(kg)
MOTOR	3,00
DECIMAL GEARHEAD	0,62

#### DIMENSION TABLE

PART No	Application Model	Mounting BOLT
01	K9P3~200B	M6 P1,0 X 95
02	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

#### DIMENSION TABLE

PART No	Application Model	Mounting BOLT
01	K9P3~200BF	M6 P1,0 X 20
02	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

#### DIMENSION TABLE

PART No	Application Model	Mounting BOLT
01	K9P3~200BU	M6 P1,0 X 20
02	K9P10BX	M6 P1,0 X 65

#### WEIGHT

PART	WEIGHT(kg)
K9P3~10BU	1,44
K9P12,5~20BU	1,55
K9P25~60BU	1,69
K9P75~200BU	1,74

#### DIMENSION TABLE

PART No	Application Model	Mounting BOLT
01	K9P3~200BUF	M6 P1,0 X 20
02	K9P10BX	M6 P1,0 X 65

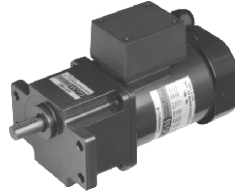
#### WEIGHT

PART	WEIGHT(kg)
K9P3~10BUF	1,50
K9P12,5~20BUF	1,62
K9P25~60BUF	1,76
K9P75~200BUF	1,82

K9IP90F□-T + K9P□B



K9IP90F□-T + K9P□BF, BUF



K9IP90F□-T + K9P□BU



**WEIGHT**

PART	WEIGHT(kg)
MOTOR	3,18
DECIMAL GEARHEAD	0,62

**DIMENSION TABLE**

PART No	Application Model	Mounting BOLT
01	K9P3~200B	M6 P1,0 X 95
02	K9P10BX	M6 P1,0 X 140

**WEIGHT**

PART	WEIGHT(kg)
K9P3~10B	1,22
K9P12,5~20B	1,32
K9P25~60B	1,42
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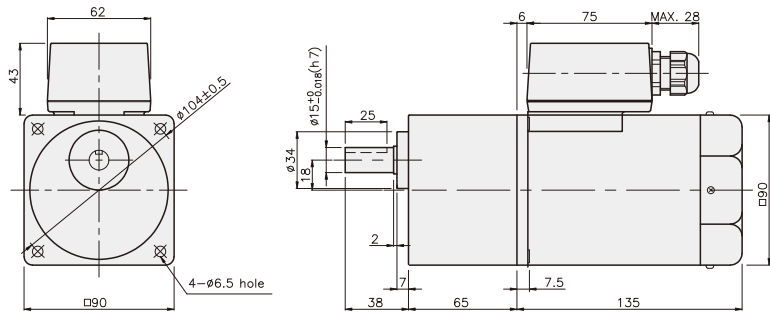
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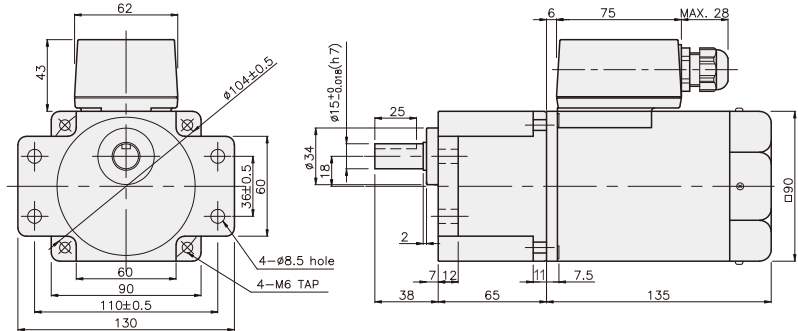
**WEIGHT**

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K9P3~10BUF	1,50
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K9P25~60BUF	1,76
K9P75~200BUF	1,82

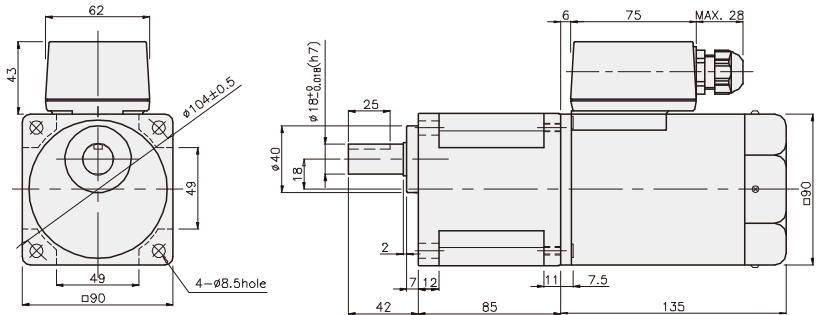
K9IP90F□-T + K9P□B



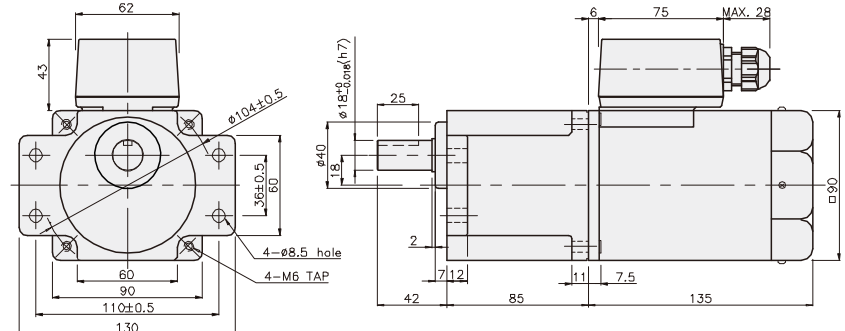
K9IP90F□-T + K9P□BF



K9IP90F□-T + K9P□BU



K9IP90F□-T + K9P□BUF



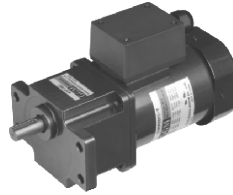
## GEARHEAD

### DIMENSIONS

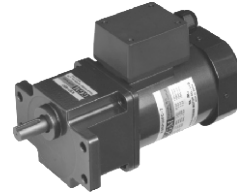
K9IP90F□-T5 + K9P□B



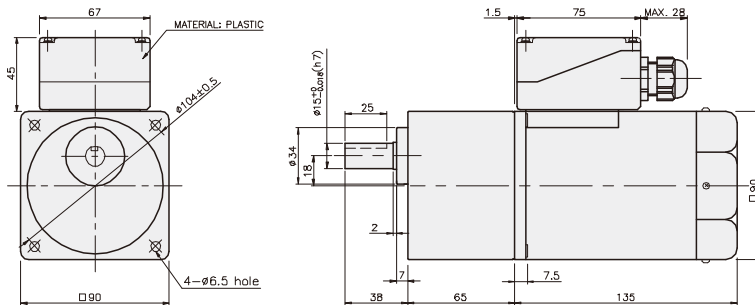
K9IP90F□-T5 + K9P□BF, BUF



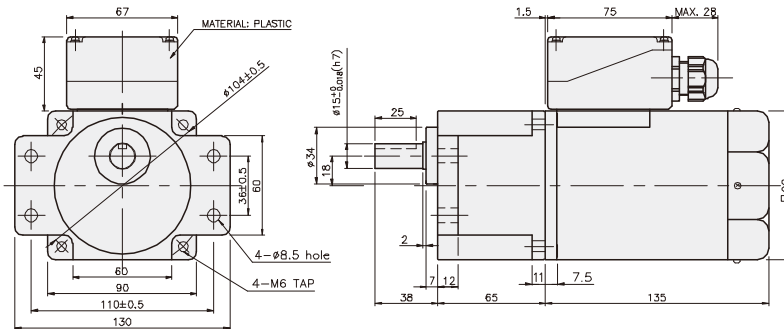
K9IP90F□-T5 + K9P□BU



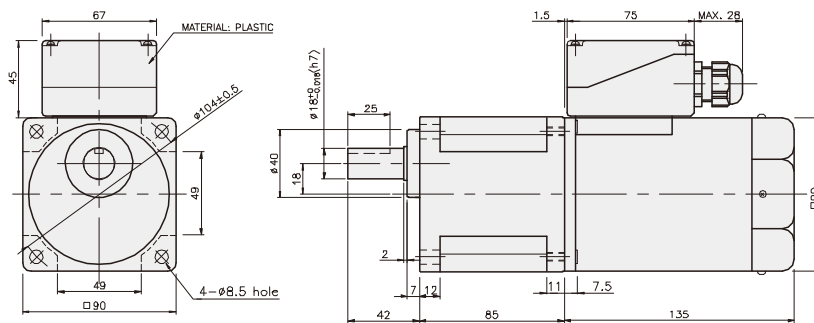
K9IP90F□-T5 + K9P□B



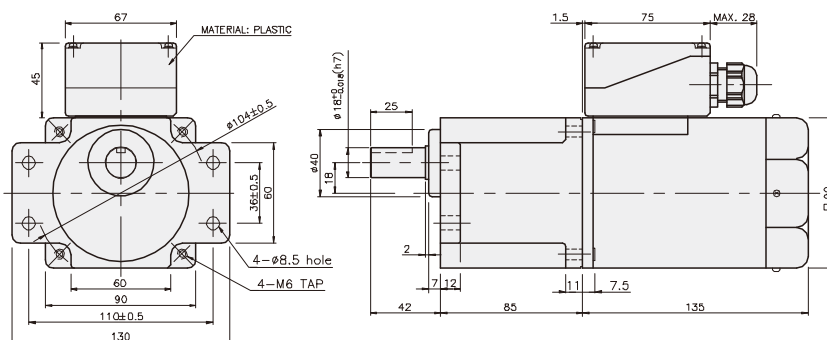
K9IP90F□-T5 + K9P□BF



K9IP90F□-T5 + K9P□BU



K9IP90F□-T5 + K9P□BUF



#### WEIGHT

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K9P25~60BUF	1,76
K9P75~200BUF	1,82