



# 60W

INDUCTION MOTOR □ 90mm LEAD WIRE TYPE

SIZE mm sq.	Type	Poles	Output (W)	Voltage (V)	Frequency (Hz)	Duty	Rated Load				Starting Torque		Capacitor (uF)	
							Current (A)	Speed (rpm)	Torque (kg-cm) (N-m)		(kg-cm)	(N-m)		
90	S9I60GA( ) S9I60GA( )(TP) S9I60GA( )CE	4	60	1 ∅ 110	60	Cont.	1.35	1600	3.80	0.380	4.80	0.480	15.0	
	S9I60GB( ) S9I60GB( )(TP) S9I60GB( )CE	4	60	1 ∅ 220	60	Cont.	0.68	1600	3.90	0.390	4.80	0.480	4.0	
	S9I60GC( ) S9I60GC( )(TP) S9I60GC( )CE	4	60	1 ∅ 100	50	Cont.	1.26	1300	4.60	0.460	3.40	0.340	15.0	
	60				1.37		1550	3.90	0.390					
	S9I60GD( ) S9I60GD( )(TP) S9I60GD( )CE	4	60	1 ∅ 200	50	Cont.	0.65	1300	4.70	0.470	3.85	0.385	4.0	
	60				0.70		1550	4.00	0.400					
	S9I60GE( ) S9I60GE( )CE	4	60	1 ∅ 100	50	Cont.	1.10	1300	4.60	0.460	3.20	0.320	15.0	
	60				1.20		1550	3.90	0.390					
	60				1.20		1550	4.00	0.400	12.0				
	S9I60GX( ) S9I60GX( )CE	4	60	1 ∅ 220	50	Cont.	0.47	1300	4.60	0.460	3.20	0.320	3.5	
	1 ∅ 240			0.50			4.90		0.490	3.90	0.390			
	S9I60GU( ) S9I60GU( )CE	4	60	3 ∅ 200	50	Cont.	0.60	1300	4.60	0.460	9.30	0.930	—	
	60				0.50		1550	3.90	0.390	8.00	0.800			
	S9I60GT( ) S9I60GT( )CE	4	60	3 ∅ 220	50	Cont.	0.80	1350	4.40	0.440	11.35	1.135	—	
	60				0.57		1600	3.90	0.390	9.30	0.930			
	S9I60GS( ) S9I60GS( )CE	4	60	3 ∅ 380	50	Cont.	0.27	1300	4.60	0.460	8.25	0.825	—	
					60		0.24	1550	3.90	0.390	6.50	0.650		
					3 ∅ 400	50	Cont.	0.29	1300	4.70	0.470	9.30		0.930
						60		0.25	1550	4.00	0.400	7.35		0.735
					3 ∅ 415	50	Cont.	0.27	1350	4.60	0.460	9.95		0.995
60						0.23		1600	3.80	0.380	7.50	0.750		
3 ∅ 440				50	Cont.	0.31	1350	4.70	0.470	10.75	1.075			
				60		0.25	1600	3.90	0.390	8.40	0.840			

- ❖ S9I60GE is UL approved (UL FILE No. E172720) thermally protected type.
- ❖ Appropriate capacitors shall be used according to the voltage for S9I60GE type since the size of the capacitor differs by different voltages. Malfunction may occur when not used properly. Capacitor for 115V will be delivered otherwise the required voltage is informed.
- ❖ CE marked at the end of model name indicates that it is thermally protected type which has received CE with built-in TP. S9I60GE( )CE is available only for 115V specification.
- ❖ TP marked at the end of the model name indicates that it is standard motor with Thermal Protector mounted.
- ❖ S9I60GE, S9I60GX, S9I60GS is thermally protected type with TP mounted.
- ❖ Be cautious when using a three-phase 380V motor controlled with inverter.
- ❖ ( ) is for marking 'L' type or 'H'. 'L' should be used with gearhead 'L' and 'H' should be used with gearhead 'H'.
- ❖ For a three-phase 380V~440V motor, be cautious when using the inverter. When inverter is used, the insulation of winding becomes hot and may cause damage to motor.

## 50Hz

MODEL	GEAR RATIO	rpm																							
		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
S9KC□( )	kg-cm	12.2	14.6	20.3	24.3	30.4	36.5	40.5	45.6	54.8	65.7	73.0	82.5	99.0	119	132	165	198	200	200	200	200	200	200	200
S9KC□( )-S	N·m	1.196	1.431	1.989	2.381	2.989	3.577	3.969	4.469	5.370	6.439	7.154	8.085	9.702	11.66	12.94	16.17	19.40	19.60	19.60	19.60	19.60	19.60	19.60	19.60

## 60Hz

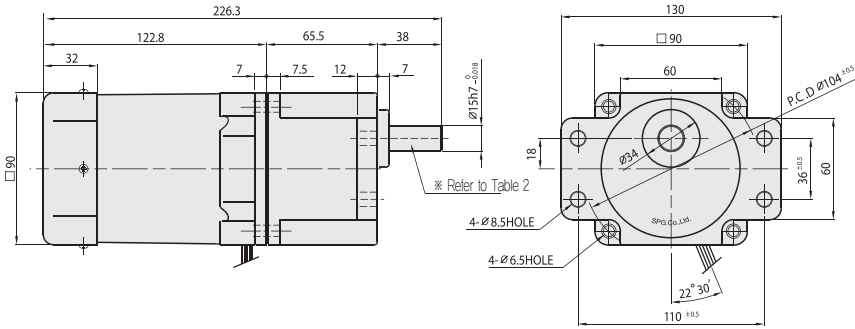
MODEL	GEAR RATIO	rpm																							
		3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
S9KC□( )	kg-cm	9.72	11.7	16.2	19.4	24.3	29.2	32.4	36.5	43.8	52.6	58.4	66.0	79.2	95.0	106	132	158	177	200	200	200	200	200	200
S9KC□( )-S	N·m	0.953	1.147	1.588	1.901	2.381	2.862	3.175	3.577	4.292	5.155	5.723	6.468	7.762	9.310	10.39	12.94	15.48	17.35	19.60	19.60	19.60	19.60	19.60	19.60

- ❖ The code in □ of gearhead model is for gear ratio. ❖ It is the permissible torque of the assembled motor and gearhead.
- ❖ The permissible torque of the motor and inter-decimal gearhead is 200 kg-cm.
- ❖ ■ 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.
- ❖ Rpm is based on synchronous speed (50Hz: 1500rpm, 60Hz: 1800rpm) divided by gear ratio. The actual rotation speed can be 2~20% less than displayed value depending on the load.
- ❖ ( ) is for marking 'L' type or 'H'. 'L' should be used with motor 'L' and 'H' should be used with motor 'H'.

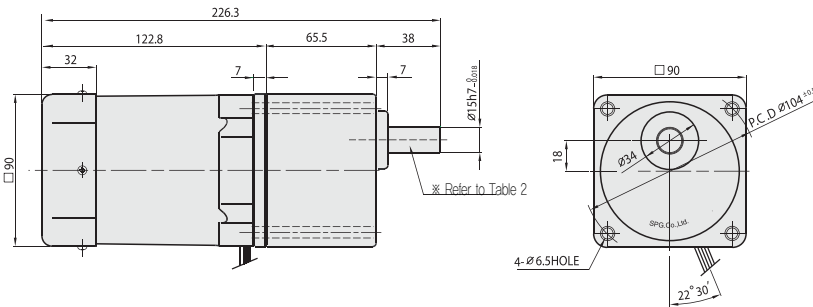
# DIMENSIONS

## + GEARED MOTOR

\* MOTOR MODEL : S9I60G□□  
 \* HEAD MODEL : S9□C3B□-S~S9□C200B□-S

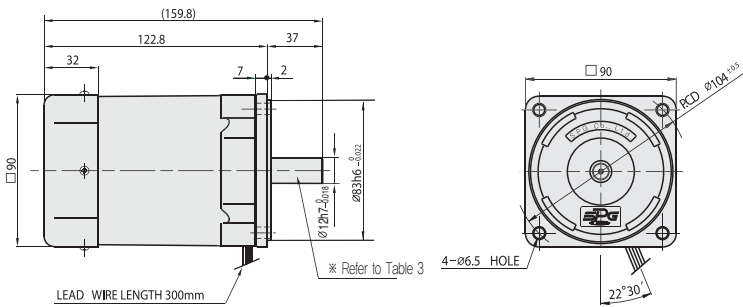


\* MOTOR MODEL : S9I60G□□  
 \* HEAD MODEL : S9□C3B□-S~S9□C200B□-S



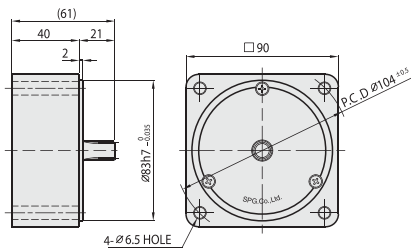
## + MOTOR

\* MOTOR MODEL : S9I60□□□



## + INTER-DECIMAL GEAR HEAD

\* MODEL : S9GX10B(H,L)-S



## + WEIGHT - (Table 1)

PART	WEIGHT(kg)	
MOTOR	2.44	
DECIMAL GEAR HEAD	0.65	
GEAR HEAD	S9□C3B□ ~S9□C10B□	1.21
	S9□C12.5B□ ~S9□C20B□	1.30
	S9□C25B□ ~S9□C60B□	1.40
	S9□C75B□ ~S9□C200B□	1.45

## + KEY SPEC

GEAR HEAD	MOTOR

## + SPEC for output shaft of gearhead - (Table 2)

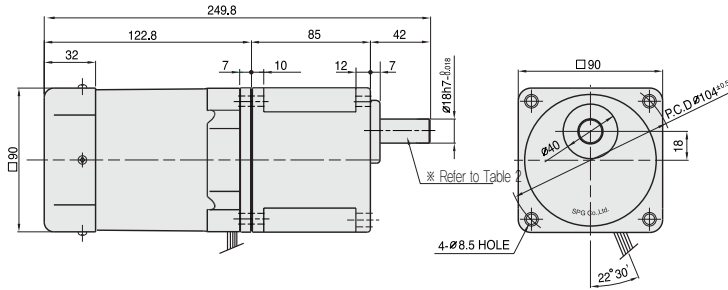
MODEL	TYPES OF OUTPUT SHAFT
STRAIGHT TYPE	
S9SC3B□ ~S9SC200B□	
D-CUT TYPE	
S9DC3B□ ~S9DC200B□	
KEY TYPE	
S9KC3B□ ~S9KC200B□	

## + SPEC for output shaft of motor - (Table 3)

MODEL	TYPES OF OUTPUT SHAFT
GEAR TYPE	
S9I60G□□	
STRAIGHT TYPE	
S9I60S□	
D-CUT TYPE	
S9I60D□	
KEY TYPE	
S9I60K□	

# DIMENSIONS

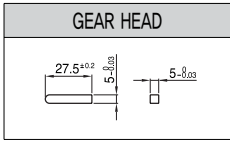
**+** GEARED MOTOR    \* MOTOR MODEL : S9I60G□H  
 \* HEAD MODEL : S9□D3B~S9□D200B



**+** WEIGHT - (Table1)

PART		WEIGHT(kg)
MOTOR		2.44
GEAR HEAD	S9□D3B ~S9□D10B□	1.65
	S9□D12.5B ~S9□D20B	1.80
	S9□D25B ~S9□D60B	1.90
	S9□D75B ~S9□D200B	1.95

**+** KEY SPEC



**+** SPEC for output shaft of gearhead - (Table2)

MODEL	TYPES OF OUTPUT SHAF	MODEL	TYPES OF OUTPUT SHAF	MODEL	TYPES OF OUTPUT SHAF
STRAIGHT TYPE S9SD3B ~S9SD200B		D-CUT TYPE S9DD3B ~S9DD200B		KEY TYPE S9KD3B ~S9KD200B	

## 50Hz

GEAR RATIO	MODEL																							
	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
rpm	500	416	300	250	200	166	150	120	100	83	75	60	50	41	37	30	25	20	16	15	12	10	8	7.5
kg-cm	12.2	14.6	20.3	24.3	30.4	36.5	40.5	45.6	54.8	65.7	73.0	82.5	99.0	119	132	165	198	221	266	295	300	300	300	300
N·m	1.196	1.431	1.989	2.381	2.989	3.577	3.969	4.469	5.370	6.439	7.154	8.085	9.702	11.66	12.94	16.17	19.40	21.67	26.09	28.93	29.42	29.42	29.42	29.42

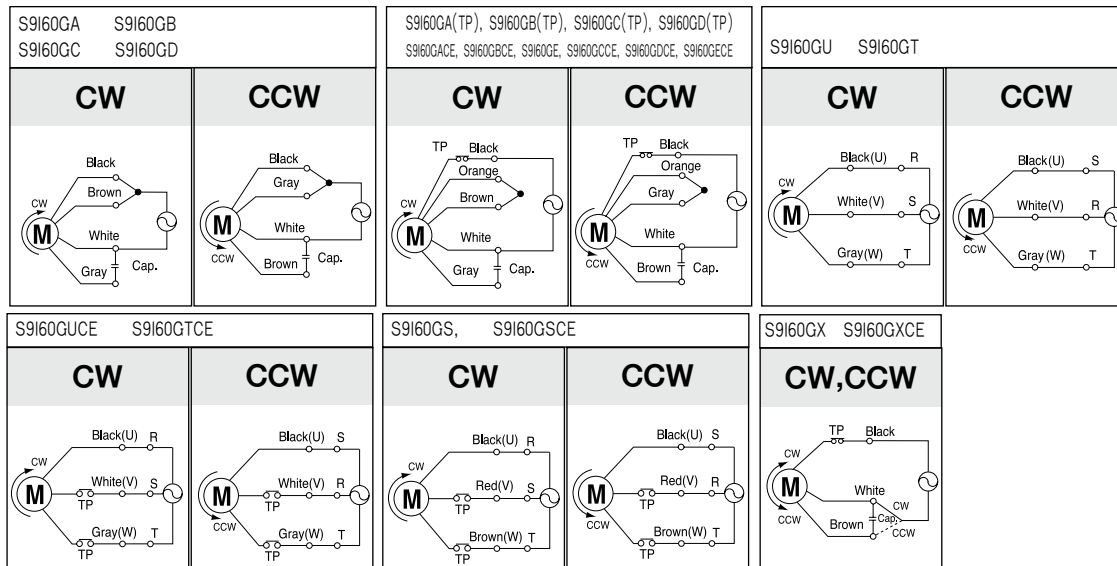
## 60Hz

GEAR RATIO	MODEL																							
	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
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
kg-cm	9.72	11.7	16.2	19.4	24.3	29.2	32.4	36.5	43.8	52.6	58.4	66.0	79.2	95.0	106	132	158	177	212	236	283	300	300	300
N·m	0.953	1.147	1.588	1.901	2.381	2.862	3.175	3.577	4.292	5.155	5.723	6.468	7.762	9.310	10.39	12.94	15.48	17.35	20.79	23.14	27.75	29.42	29.42	29.42

- ◆ The code in □ of gearhead model is for gear ratio.    ◆ It is the permissible torque of the assembled motor and gearhead.
- ◆ The permissible torque of the motor and inter-decimal gearhead is 300 kg-cm.
- ◆ ■ 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.
- ◆ Rpm is based on synchronous speed (50Hz: 1500rpm, 60Hz: 1800rpm) divided by gear ratio.  
The actual rotation speed can be 2~20% less than displayed value depending on the load.
- ◆ Only "H" type is applicable. Please use 'H' type motor.

# SCHEMATIC DIAGRAMS

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



Change the direction of motor rotation only after the motor stops completely. If an attempt is made to change the direction of rotation while the motor is running, the motor may ignore the reversing command or change its direction of rotation after some delay.