

# 90W

## 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	S9190GA( ) S9190GA( )(TP) S9190GA( )CE	4	90	1 ∅ 110	60	Cont.	2.00	1600	5.60	0.560	5.70	0.570	25.0
	S9190GB( ) S9190GB( )(TP) S9190GB( )CE	4	90	1 ∅ 220	60	Cont.	1.00	1600	5.60	0.560	5.70	0.570	6.0
	S9190GC( ) S9190GC( )(TP) S9190GC( )CE	4	90	1 ∅ 100	50	Cont.	1.80	1300	6.90	0.690	5.00	0.500	25.0
		60	2.00	1550	5.80		0.580						
	S9190GD( ) S9190GD( )(TP) S9190GD( )CE	4	90	1 ∅ 200	50	Cont.	0.90	1300	6.90	0.690	5.00	0.500	6.0
		60	1.00	1550	5.80		0.580						
	S9190GE( ) S9190GE( )CE	4	90	1 ∅ 100	50	Cont.	1.50	1300	6.90	0.690	5.00	0.500	25.0
		60	1.80	1550	5.80		0.580						
		1 ∅ 115	60	1.80	1550		6.00	0.600					
	S9190GX( ) S9190GX( )CE	4	90	1 ∅ 220	50	Cont.	0.68	1300	6.90	0.690	4.80	0.480	5.0
		1 ∅ 240	0.72	7.20	0.720		5.20		0.520				
	S9190GU( ) S9190GU( )CE	4	90	3 ∅ 200	50	Cont.	0.63	1300	6.90	0.690	10.60	1.060	—
		60	0.60	1550	6.00		0.600	8.90	0.890				
	S9190GT( ) S9190GT( )CE	4	90	3 ∅ 220	50	Cont.	0.68	1350	6.80	0.680	13.00	1.300	—
		60	0.55	1600	5.70		0.570	10.50	1.050				
	S9190GS( ) S9190GS( )CE	4	90	3 ∅ 380	50	Cont.	0.32	1300	6.80	0.680	10.55	1.055	—
					60		0.30	1550	5.70	0.570	8.20	0.820	
				3 ∅ 400	50	Cont.	0.35	1300	6.90	0.690	11.70	1.170	
60					0.32		1550	5.80	0.580	8.90	0.890		
3 ∅ 415				50	Cont.	0.33	1350	6.80	0.680	12.00	1.200		
				60		0.29	1600	5.70	0.570	9.50	0.950		
3 ∅ 440	50	Cont.	0.35	1350	6.90	0.690	13.30	1.330					
60	0.31		1600	5.80	0.580	10.50	1.050						

- S9190GE is UL approved (UL FILE No. E172720) thermally protected type.
- Please use appropriate capacitors according to the using voltage for S9190GE type since the size of the capacitors differ to the different voltages and when not used properly, it may cause malfunction. Please inform required voltage when ordering or capacitor for 115V will be delivered.
- "CE" marked at the end of model name indicates that it is thermally protected type which has received CE (File NO. E9766002E01, Certificate Institute: TÜV Rhinland) with built-in TP S9190GE( )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.  
S9190GE, S9190GX, S9190GS is thermally protected type with TP mounted.
- In case 3 phase 380V motor is controlled with inverter, please be careful to use considerin
- ( ) is for marking 'L' type or 'H'. 'L' should be used with gearhead 'L' and 'H' should be used with gearhead 'H'.

### 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
S9KCB( )	kg-cm	18.2	21.9	30.4	36.5	45.6	54.7	60.8	68.4	82.1	98.6	110	124	149	178	198	200	200	200	200	200	200	200	200	200
S9KCB( )-S	N·m	1.784	2.146	2.979	3.577	4.469	5.361	5.958	6.703	8.046	9.663	10.78	12.15	14.60	17.44	19.40	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60

### 60Hz

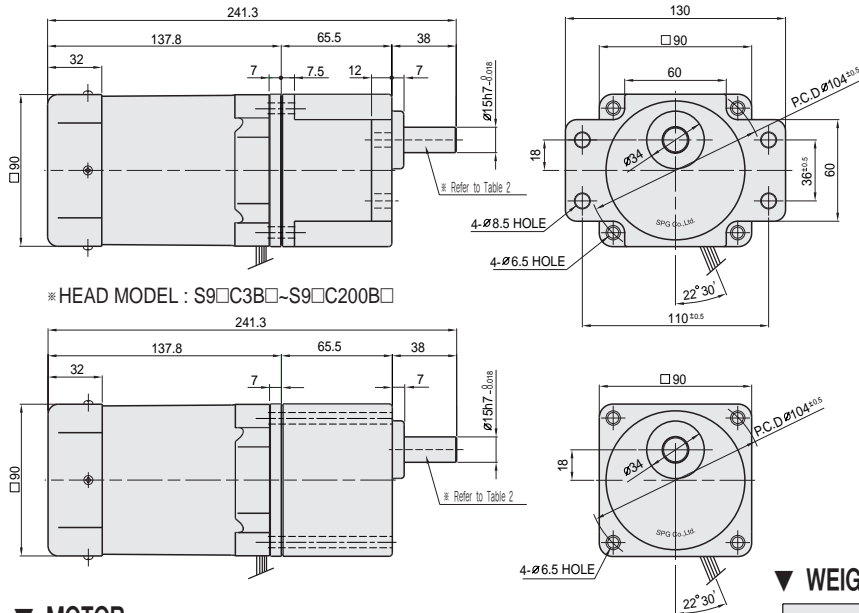
MODEL	GEAR RATIO	rpm																							
		3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
S9KCB( )	kg-cm	14.6	17.5	24.3	29.2	36.5	43.7	48.6	54.8	65.7	78.8	87.6	99.0	119	143	158	198	200	200	200	200	200	200	200	200
S9KCB( )-S	N·m	1.431	1.715	2.381	2.862	3.577	4.675	4.763	5.370	6.439	7.722	8.585	9.702	11.66	14.01	15.48	19.40	19.60	19.60	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 assembled with motor and inter-decimal gearhead is 200kg · 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.
- Rotational speed based on synchronous speed (50Hz:1500rpm, 60Hz:1800rpm) divided by gear ratio.  
The actual rotation speed is less 2-20% than the displayed value according to the load.
- ( ) is for marking 'L' type or 'H'. 'L' should be used with motor 'L' and 'H' should be used with motor 'H'.

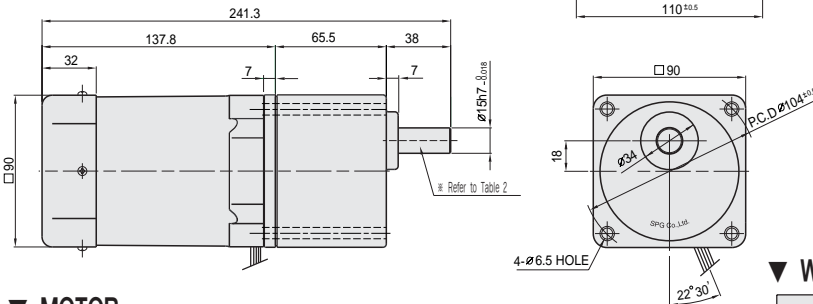
# DIMENSIONS

## ▼ GEARED MOTOR

- ※ MOTOR MODEL : S9190G□□
- ※ HEAD MODEL : S9□C3B□-S~S9□C200B□-S

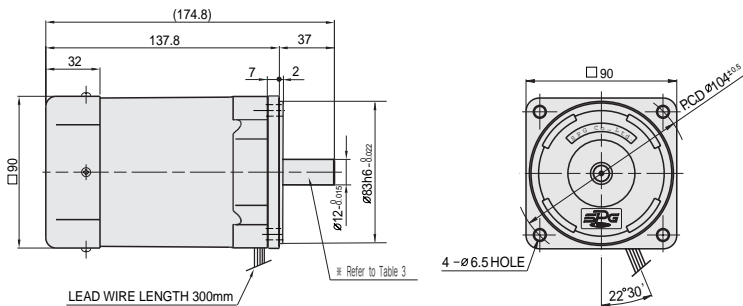


- ※ HEAD MODEL : S9□C3B□-S9□C200B□



## ▼ MOTOR

- ※ MOTOR MODEL : S9190□□□

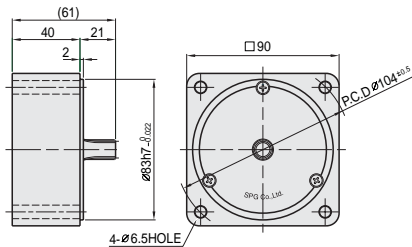


## ▼ WEIGHT-(Table 1)

PART	WEIGHT(Kg)	
MOTOR	2.93	
DECIMAL GEARHEAD	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

## ▼ INTER-DECIMAL GEAR HEAD

- ※ MOTOR MODEL : S9GX10B(H,L)-S



## ▼ KEY SPEC

GEARHEAD	MOTOR

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

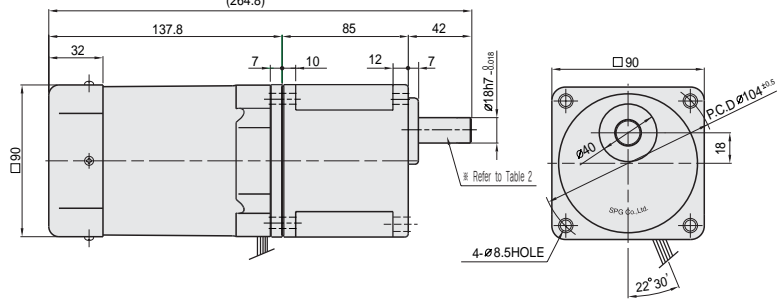
MODEL	TYPES OF OUTPUT SHAFT
STRAIGHT TYPE S9SC3B□ ~S9SC200B□	
D-CUT TYPE S9DCB3□ ~S9DC200B□	
KEY TYPE S9KC3B□ ~S9KC200B□	

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

MODEL	TYPES OF OUTPUT SHAFT
GEAR TYPE S9190G□□	
STRAIGHT TYPE S9190S□	
D-CUT TYPE S9190D□	
KEY TYPE S9190K□	

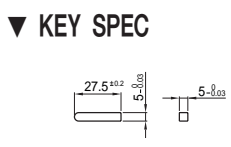
# DIMENSIONS

**▼ GEARED MOTOR** \* MOTOR MODEL : S9190G□H  
 \* HEAD MODEL : S9□D3B~S9□D200B



**▼ WEIGHT -(Table 1)**

PART	WEIGHT(Kg)	
<b>MOTOR</b>	2.93	
<b>GEAR HEAD</b>	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



**▼ SPEC for output shaft of gearhead -(Table 2)**

MODEL	TYPES OF OUTPUT SHAFT	MODEL	TYPES OF OUTPUT SHAFT	MODEL	TYPES OF OUTPUT SHAFT
STRAIGHT TYPE		D-CUT TYPE		KEY TYPE	
S9SD3B ~S9SD200B		S9DDB3B ~S9DD200B		S9KD3B ~S9KD200B	

## 50Hz

MODEL	GEAR 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
	S9KD□B	rpm	500	416	300	250	200	166	150	120	100	83	75	60	50	41	37	30	25	20	16	15	12	10	8
kg-cm		18.2	21.9	30.4	36.5	45.6	54.7	60.8	68.4	82.1	98.6	110	124	149	178	198	248	297	300	300	300	300	300	300	300
	N·m	1.784	2.146	2.979	3.577	4.469	5.361	5.958	6.703	8.046	9.663	10.78	12.15	14.60	17.44	19.40	24.32	29.13	29.42	29.42	29.42	29.42	29.42	29.42	29.42

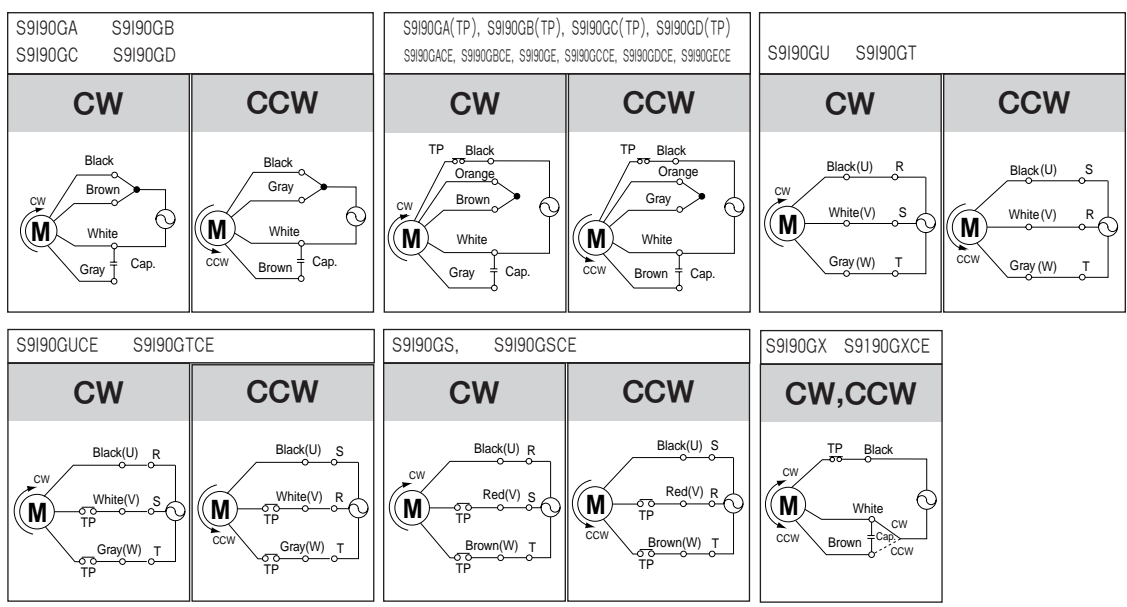
## 60Hz

MODEL	GEAR 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
	S9KD□B	rpm	600	500	360	300	240	200	180	144	120	100	90	72	60	50	45	36	30	24	20	18	15	12	10
kg-cm		14.6	17.5	24.3	29.2	36.5	43.7	48.6	54.8	65.7	78.8	87.6	99.0	119	143	158	198	238	266	300	300	300	300	300	300
	N·m	1.431	1.715	2.381	2.862	3.577	4.675	4.763	5.370	6.439	7.722	8.585	9.702	11.66	14.01	15.48	19.40	23.34	26.09	29.42	29.42	29.42	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 assembled with motor and inter-decimal gearhead is 300kg·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.
- Rotational speed based on synchronous speed (50Hz:1500rpm, 60Hz:1800rpm) divided by gear ratio. The actual rotation speed is less 2-20% than the displayed value according to the load.
- There is not marked the 'H' type caused by exclusive use. 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.