



**SPECIFICATION OF SR TYPE SPEED CONTROL MOTORS**

SIZE mm sq.	Motor Type	Controller Type	Poles	Output (W)	Voltage (V)	Freq. (Hz)	Duty	Speed Range (rpm)	Permissible Torque				Starting Torque		Cap. (μF)
									at 1200rpm		at 90rpm		(kg-cm)	(N-m)	
90	S9R60GA( )-ES12 S9R60GA( )-ES12CE	SRA02 SRA02CE	4	60	1 ∅ 110	60	30min.	90-1700	5.50	0.550	3.92	0.392	6.10	0.610	25.0
	S9R60GB( )-ES12 S9R60GB( )-ES12CE	SRB02 SRB02CE	4	60	1 ∅ 220	60	30min.	90-1700	5.50	0.550	3.92	0.392	6.10	0.610	6.0
	S9R60GC( )-ES12 S9R60GC( )-ES12CE	SRC02 SRC02CE	4	60	1 ∅ 100	50 60	30min.	90-1400 90-1700	5.11 4.42	0.511 0.442	3.61	0.361	6.04	0.604	25.0
	S9R60GD( )-ES12 S9R60GD( )-ES12CE	SRD02 SRD02CE	4	60	1 ∅ 200	50 60	30min.	90-1400 90-1700	5.11 4.42	0.511 0.442	3.61	0.361	6.04	0.604	6.0
	S9R60GX( )-ES12 S9R60GX( )-ES12CE	SRX02 SRX02CE	4	60	1 ∅ 220 1 ∅ 240	50	30min.	90-1400	5.25 5.90	0.525 0.590	3.01 3.25	0.301 0.325	6.02 6.32	0.602 0.632	5.0

❖ TP marked at the end of the motor model name indicates that it is standard motor with Thermal Protector mounted  
S9R60GX-ES12 is thermally protected type with TP mounted.

❖ ( ) is for marking 'L' type or 'H'. 'L' should be used with gearhead 'L' and 'H' should be used with gearhead 'H'.

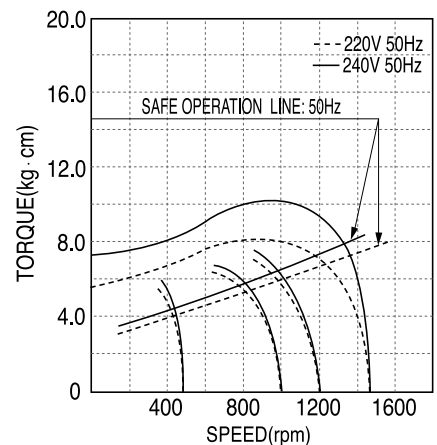
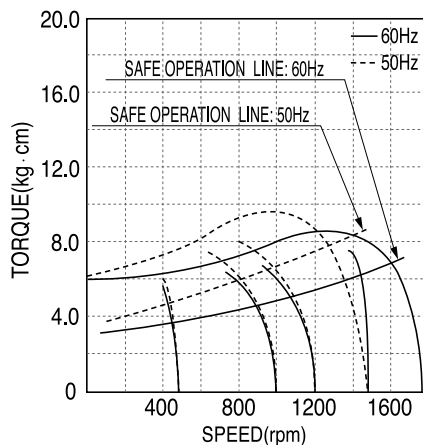
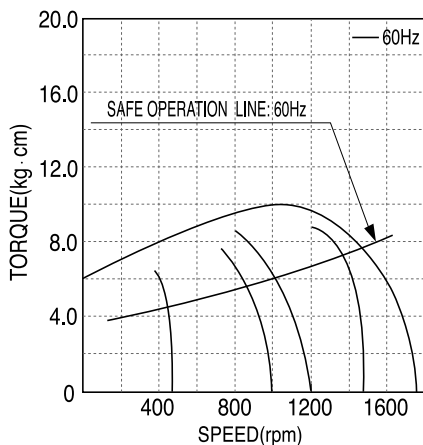
**50Hz**

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																										
	MODEL	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	
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	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	19.60	19.60

**60Hz**

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																									
	MODEL	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
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	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	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'.



▲ S9R60GA( )-ES12 S9R60GB( )-ES12  
S9R60GA( )-ES12(TP) S9R60GB( )-ES12(TP)

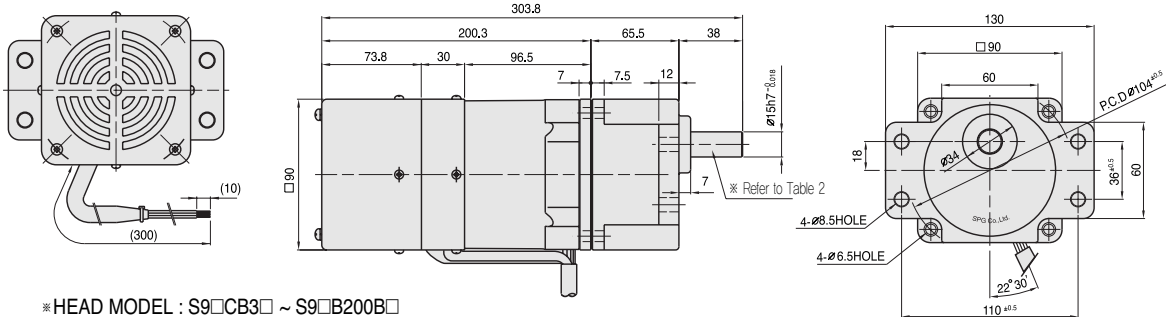
▲ S9R60GC( )-ES12 S9R60GD( )-ES12  
S9R60GC( )-ES12(TP) S9R60GD( )-ES12(TP)

▲ S9R60GX( )-ES12

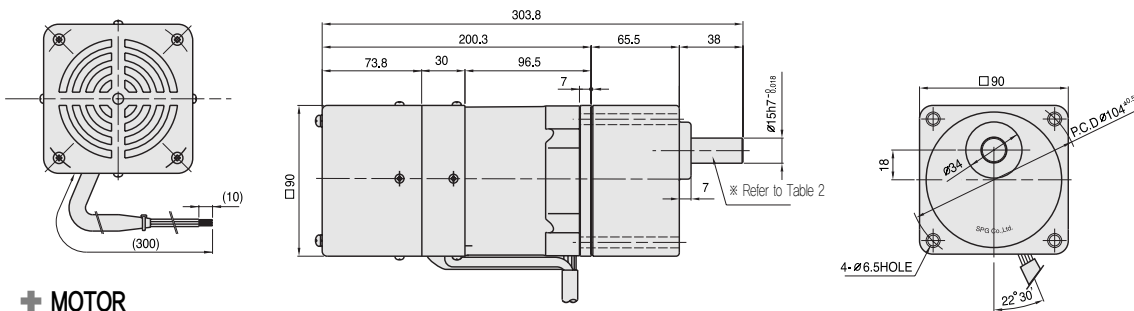
# DIMENSIONS

## + GEARED MOTOR

※ MOTOR MODEL : S9R60G□□-ES12  
 ※ HEAD MODEL : S9□C3B□~S9□C200B□-S

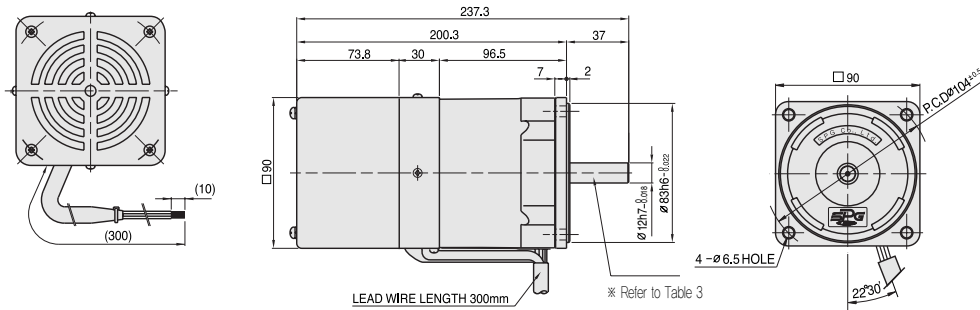


※ HEAD MODEL : S9□CB3□ ~ S9□B200B□



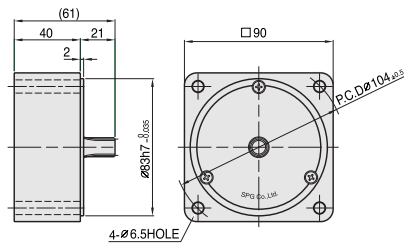
## + MOTOR

※ MOTOR MODEL : S9R60□□□-ES12



## + INTER-DECIMAL GEAR HEAD

※ MODEL : S9GX10B(H,L)



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

MODEL	TYPES OF OUTPUT SHAFT
STRAIGHT TYPE	
S9SC3B□ ~S9SC200B□	
D-CUT TYPE	
S9SDC3B□ ~S9SDC200B□	
KEY TYPE	
S9KC3B□ ~S9KC200B□	

## + WEIGHT - (Table1)

PART	WEIGHT(kg)	
MOTOR	3.45	
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

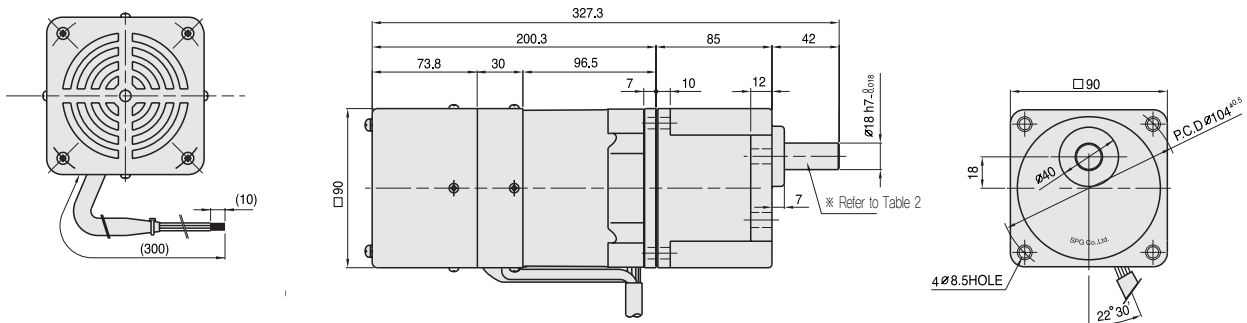
## + SPEC for output shaft of motor - (Table3)

MODEL	TYPES OF OUTPUT SHAFT
GEAR TYPE	
S9R60G□-ES12	
STRAIGHT TYPE	
S9R60S□-ES12	
D-CUT TYPE	
S9R60D□-ES12	
KEY TYPE	
S9R60K□-ES12	

# DIMENSIONS

## + GEARED MOTOR

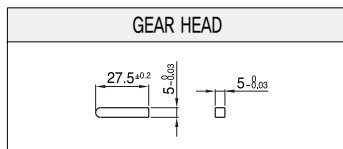
- \* MOTOR MODEL : S9R60G□H-ES12
- \* HEAD MODEL : S9□D3B□~S9□D200B



## + WEIGHT - (Table 1)

PART	WEIGHT(kg)	
MOTOR	3.45	
DECIMAL GEAR HEAD	1.65	
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 - (Table 2)

MODEL	TYPES OF OUTPUT SHAFT
STRAIGHT TYPE	
S9SD3B□ ~S9SD200B□	
D-CUT TYPE	
S9DD3B□ ~S9DD200B□	
KEY TYPE	
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
	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
S9KD□B	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

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
	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
S9KD□B	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.