



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. (μ F)
									at 1200rpm		at 90rpm		(kg-cm)	(N-m)	
90	S9R90GA()-ES12 S9R90GA()-ES12(CE)	SRA02 SRA02CE	4	90	1 ϕ 110	60	30min.	90-1700	8.02	0.802	5.42	0.542	7.65	0.765	30.0
	S9R90GB()-ES12 S9R90GB()-ES12(CE)	SRB02 SRB02CE	4	90	1 ϕ 220	60	30min.	90-1700	8.02	0.802	5.42	0.542	7.65	0.765	8.0
	S9R90GC()-ES12 S9R90GC()-ES12(CE)	SRC02 SRC02CE	4	90	1 ϕ 100	50 60	30min.	90-1400 90-1700	7.22 6.32	0.722 0.632	4.92	0.492	6.90	0.690	30.0
	S9R90GD()-ES12 S9R90GD()-ES12(CE)	SRD02 SRD02CE	4	90	1 ϕ 200	50 60	30min.	90-1400 90-1700	7.22 6.32	0.722 0.632	4.92	0.492	6.90	0.690	8.0
	S9R90GX()-ES12 S9R90GX()-ES12(CE)	SRX02 SRX02CE	4	90	1 ϕ 220 1 ϕ 240	50	30min.	90-1400	5.98 6.35	0.598 0.635	3.79 4.09	0.379 0.409	5.90 7.20	0.590 0.720	6.0

❖ TP marked at the end of the motor model name indicates that it is standard motor with Thermal Protector mounted.
S9R90GX()-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'.

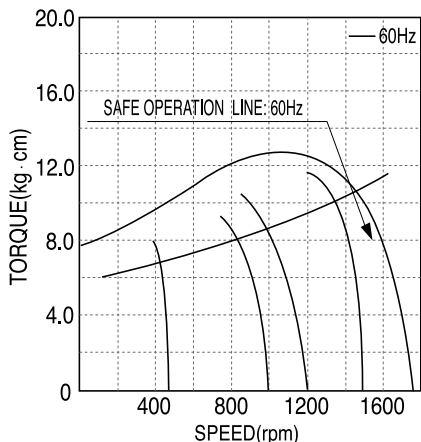
50Hz

GEAR RATIO	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□B()	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
S9KC□B()-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

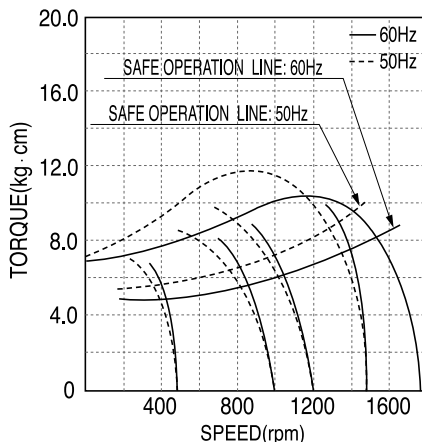
60Hz

GEAR RATIO	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□B()	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
S9KC□B()-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

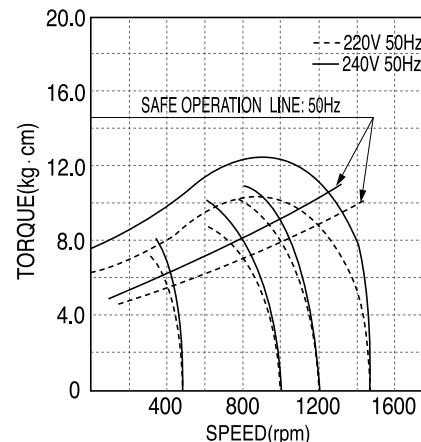
- ❖ The code in □ of gearhead model is for gear ratio. ❖ It is the permissible TORQUE of the assembled motor and gearhead.
- ❖ The permissible torque of the motor and inter-decimal gearhead is 200 kg-cm.
- ❖ ■ color indicates that the output shaft of the geared motor rotates in the same direction as 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'.



▲ S9R90GA()-ES12 S9R90GB()-ES12
S9R90GA()-ES12(TP) S9R90GB()-ES12(TP)



▲ S9R90GC()-ES12 S9R90GD()-ES12
S9R90GC()-ES12(TP) S9R90GD()-ES12(TP)

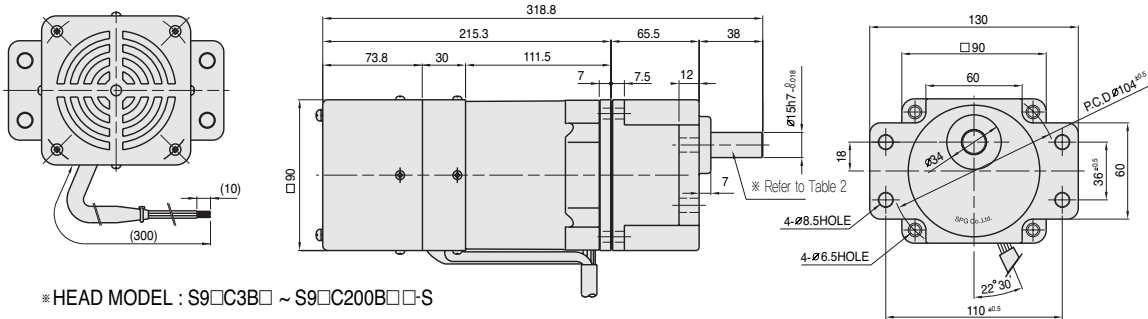


▲ S9R90GX()-ES12

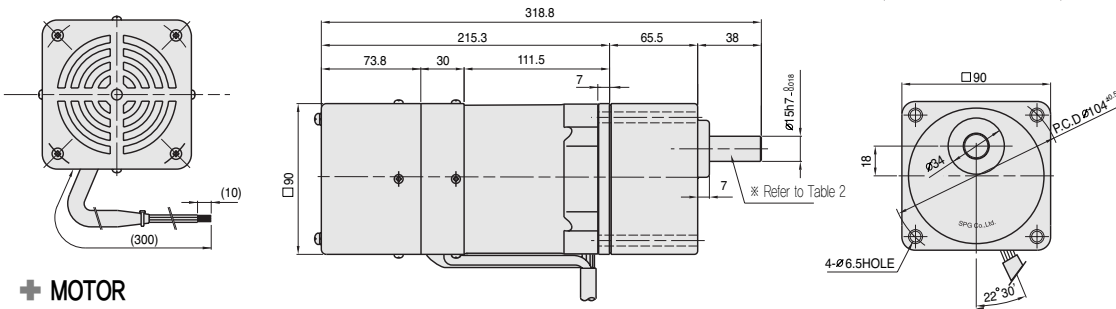
DIMENSIONS

+ GEARED MOTOR

- * MOTOR MODEL : S9R90□□-ES12
- * HEAD MODEL : S9□C3B□-S~S9□C200B□-S

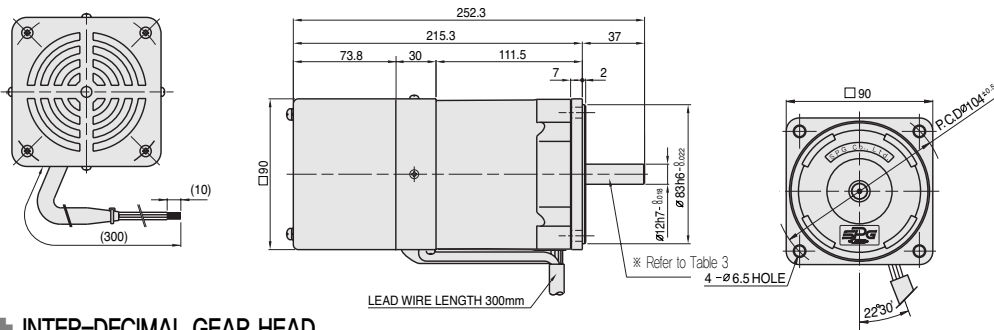


- * HEAD MODEL : S9□C3B□ ~ S9□C200B□-S



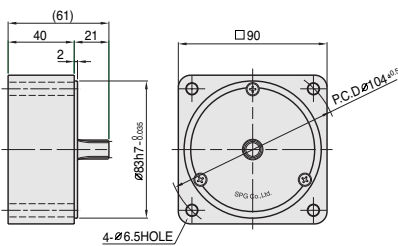
+ MOTOR

- * MOTOR MODEL : S9R90□□-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	
S9DC3B□ ~S9DC200B□	
KEY TYPE	
S9KC3B□ ~S9KC200B□	

+ SPEC for output shaft of motor - (Table3)

MODEL	TYPES OF OUTPUT SHAFT
GEAR TYPE	
S9R90□-ES12	
STRAIGHT TYPE	
S9R90□-ES12	
D-CUT TYPE	
S9R90□-ES12	
KEY TYPE	
S9R90□-ES12	

+ WEIGHT - (Table1)

PART	WEIGHT(kg)	
MOTOR	3.97	
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

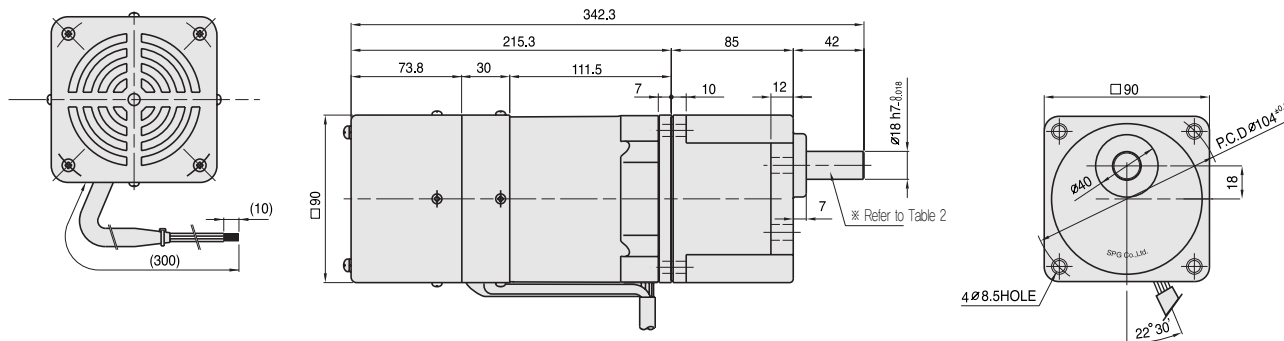
+ KEY SPEC

GEAR HEAD	MOTOR

DIMENSIONS

+ GEARED MOTOR

- * MOTOR MODEL : S9R90G□H-ES12
- * HEAD MODEL : S9□D3B□~S9□D200B



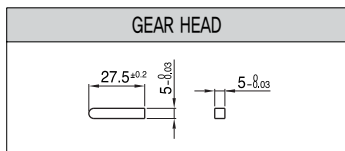
+ WEIGHT - (Table1)

PART		WEIGHT(kg)
MOTOR		3.97
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

+ SPEC for output shaft of gearhead - (Table2)

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

+ KEY SPEC



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 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.