90W

REVERSIBLE MOTOR □90㎜ LEAD WIRE TYPE

SIZE mm sq.	Type	Poles	Output	Voltage	Frequency	Duty	Rated Load				Starting Torque		Capacitor
							Current	Speed	Torque				
			(W)	(V)	(Hz)		(A)	(rpm)	(kg-cm)	(N-m)	(kg-cm)	(N-m)	(uF)
90	S9R90GA( ) S9R90GA( )(TP) S9R90GA( )CE	4	90	1Ø 110	60	30min.	2.25	1550	5.80	0.580	8.50	0.850	30.0
	S9R90GB( ) S9R90GB( )(TP) S9R90GB( )CE	4	90	1Ø 220	60	30min.	1.00	1550	5.80	0.580	8.50	0.850	7.0
	S9R90GC( ) S9R90GC( )(TP) S9R90GC( )CE	4	90	1Ø 100	50	30min.	2.10	1200	7.50	0.750	6.50	0.650	30.0
					60		2.25	1500	6.00	0.600			
	S9R90GD( ) S9R90GD( )(TP) S9R90GD( )CE	4	90	1Ø 200	50	30min.	0.90	1200	7.50	0.750	6.50	0.650	7.0
					60		1.00	1500	6.00	0.600			
	S9R90GE( ) S9R90GE( )CE	4	90	1Ø 100	50	30min.	1.80	1200	7.50	0.750	6.50	0.650	30.0
					60		1.90	1500	6.00	0.600			
				1Ø 115	60		1.80	1550	6.00	0.600	8.00	0.800	25.0
	S9R90GX( ) S9R90GX( )CE	4	90	1Ø 220	50	30min.	0.82	1250	7.20	0.720	6.50	0.650	6.0
				1Ø 240			0.86		7.40	0.740	8.00	0.800	

❖ S9R90GE is UL approved (UL FILE No. E172720) thermally protected type.
❖ Appropriate capacitors shall be used according to the voltage for S9R90GE 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.
S9R90GE( )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.
S9R90GE, S9R90GX is thermally protected type with TP mounted.
❖ Data is measured with friction brake mounted.
❖ ( ) 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		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
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

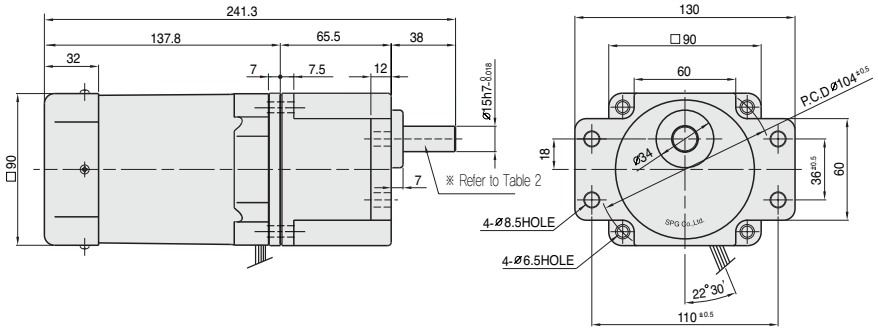
MODEL \ GEAR RATIO		3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
	rpm	600	500	360	300	240	200	180	144	120	100	90	72	60	50	45	36	30	24	20	18	15	12	10	9
S9KC□B( )	kg-cm	14.6	17.5	24.3	29.2	36.5	43.7	48.6	54.8	65.7	78.8	87.6	99.0	119	143	158	198	200	200	200	200	200	200	200	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'.

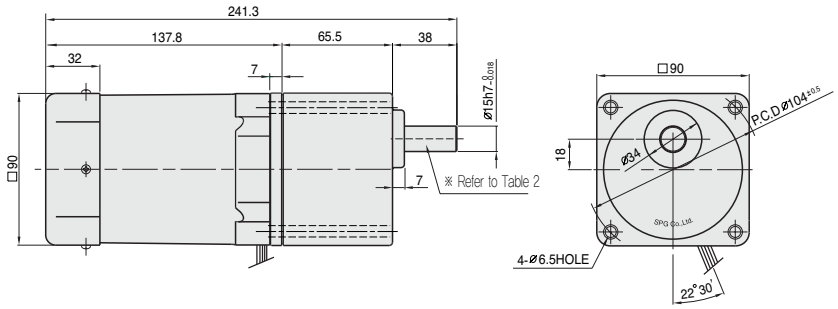
DIMENSIONS

✚ GEARED MOTOR

※MOTOR MODEL : S9R90G□□
※HEAD MODEL : S9□C3B□-S~S9□C200B□-S

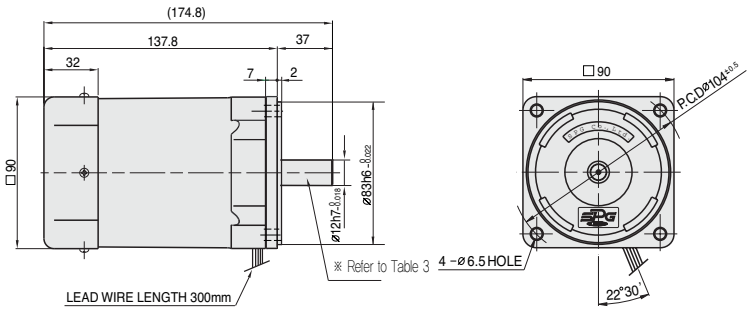


※HEAD MODEL : S9□C3B□~S9□C200B□



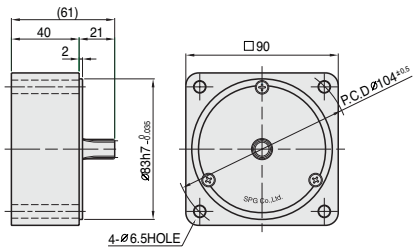
✚ MOTOR

※MOTOR MODEL : S9R90□□□



✚ INTER-DECIMAL GEAR HEAD

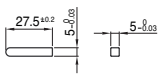
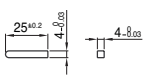
※MODEL : S9GX10B(H,L)-S



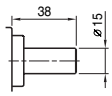
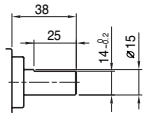
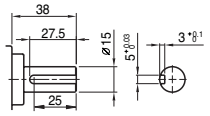
✚ WEIGHT - (Table1)

PART		WEIGHT(kg)
MOTOR		2.93
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

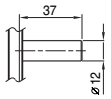
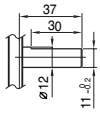
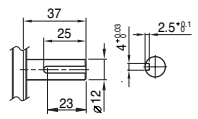
✚ KEY SPEC

GEAR HEAD	MOTOR
	

✚ SPEC for output shaft of gearhead - (Table2)

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

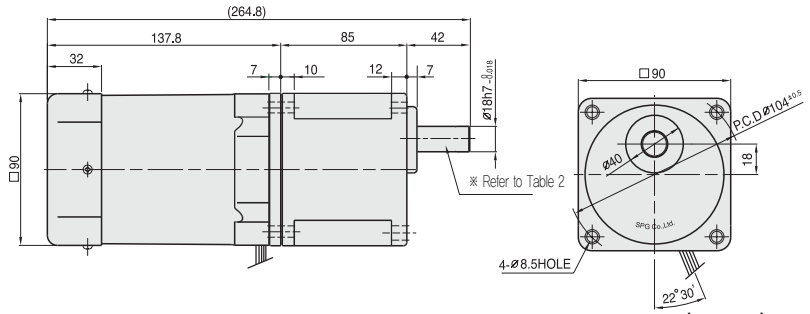
✚ SPEC for output shaft of motor - (Table3)

MODEL	TYPES OF OUTPUT SHAFT
GEAR TYPE S9R90G□□	
STRAIGHT TYPE S9R90S□	
D-CUT TYPE S9R90D□	
KEY TYPE S9R90K□	

DIMENSIONS

✚ GEARED MOTOR

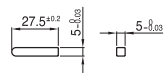
※MOTOR MODEL : S9I90G□H
※HEAD MODEL : S9□D3B~S9□D200B



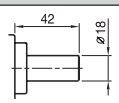
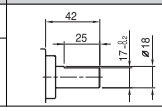
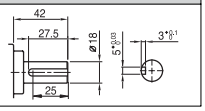
✚ WEIGHT - (Table1)

PART		WEIGHT(kg)
MOTOR		2.99
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

GEAR HEAD


✚ SPEC for output shaft of gearhead - (Table2)

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

50Hz

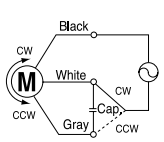
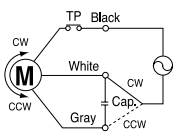
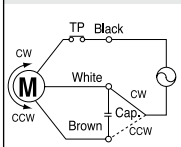
	GEAR RATIO	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
MODEL	rpm	500	416	300	250	200	166	150	120	100	83	75	60	50	41	37	30	25	20	16	15	12	10	8	7.5
S9KD□B	kg-cm	18.2	21.9	30.4	36.5	45.6	54.7	60.8	68.4	82.1	98.6	110	124	149	178	198	248	297	300	300	300	300	300	300	300
	N·m	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

	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
S9KD□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	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. Please use "H" type motor.

SCHEMATIC DIAGRAMS

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

S9R90GA S9R90GB S9R90GC S9R90GD	S9R90GA(TP) S9R90GB(TP) S9R90GC(TP) S9R90GD(TP) S9R90GACE S9R90GBCE S9R90GE S9R90GCCE S9R90GDCE S9R90GECE	S9R90GX S9R90GXCE
CW,CCW	**CW,CCW**	**CW,CCW**