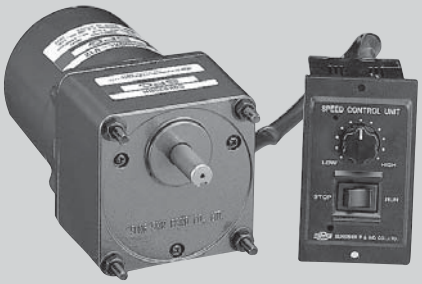
UNIT TYPE SPEED CONTROL MOTOR

Characteristics of the unit type speed control motor

- This is a unit product that uses the seperate unit type controller and motor simultaneously.
- The motor and the controller are connected with one touch.
  AC power is connected and does not require a separate connection method. Speed can be controlled by a volume switch on the exterior. Therefore, it is appropriate for uses requiring remote control.
- The unit type controller has a speed controller circuit, a condenser for the motor and the volume.(By the size of the condenser, some units have to use the condenser on the outside.)
- The unit type controller does not have an instantaneous braking function.
- By using an extension cable(sold separately), it is possible to have a max distance of 2m between the motor and the controller.
- The control range is 90[rpm]~1400[rpm] for 50Hz and 90[rpm]~1700[rpm] for 60Hz.

GENERAL SPECIFICATIONS OF SPEED CONTROL MOTORS

ITEM	Specification
Insulation Resistance	100㏁ or more when 500V megger is applied between the windings and the housing after rated motor operation under normal ambient temperature and humidity
Dielectric Strength	Sufficient to withstand 1.5V at 50/60㎐ applied between the windings and the case after rated motor operation under normal ambient temperature and humidity for 1min.
Temperature Rise	80℃ or less increase measured by thermometer after rated operation. (45°C less than the motor with fan motors with fan)
Insulation Class	B Class (130℃)
Overheat Protection Device	Built-in thermal protector (automatic return type): Open 120℃±5℃, Close 76℃±15℃
Ambient Temperature	-10℃~40℃
Ambient Humidity	85% maximum(non condensing)



40W

INDUCTION SPEED CONTROL MOTOR
□90㎜ CONNECTOR TYPE

SIZE mm sq.	Motor Type	Controller Type	Poles	Output	Voltage	Freq.	Duty	Speed Range	Permissible Torque at 1200rpm		Permissible Torque at 90rpm		Starting Torque		Cap.
				(W)	(V)	(Hz)		(rpm)	(kg-cm)	(N-m)	(kg-cm)	(N-m)	(kg-cm)	(N-m)	(μF)
90	S9I40GA( )-V12 S9I40GA( )-V12(TP) S9I40GA( )-V12CE	SUA40IA-V12	4	40	1Ø 110	60	Cont.	90-1700	2.70	0.270	1.00	0.100	2.20	0.220	10.0
	S9I40GB( )-V12 S9I40GB( )-V12(TP) S9I40GB( )-V12CE	SUA40IB-V12	4	40	1Ø 220	60	Cont.	90-1700	2.70	0.270	1.00	0.100	2.20	0.220	2.5
	S9I40GC( )-V12 S9I40GC( )-V12(TP) S9I40GC( )-V12CE	SUA40IC-V12	4	40	1Ø 100	50	Cont.	90-1400	2.70	0.270	0.90	0.090	1.80	0.180	10.0
						60		90-1700	2.00	0.200					
	S9I40GD( )-V12 S9I40GD( )-V12(TP) S9I40GD( )-V12CE	SUA40ID-V12	4	40	1Ø 200	50	Cont.	90-1400	2.70	0.270	0.90	0.090	1.80	0.180	2.5
						60		90-1700	2.00	0.200					
	S9I40GX( )-V12 S9I40GX( )-V12CE	SUA40IX-V12	4	40	1Ø 220	50	Cont.	90-1400	2.50	0.250	0.70	0.070	1.70	0.170	2.0
					1Ø 240				3.00	0.300	0.70	0.070	2.10	0.210	

❖ CE marked at the end of motor model name indicates that it is impedance protected type which has received CE.
❖ TP marked at the end of the motor model name indicates that it is standard motor with Thermal Protector mounted.
S9I40GX( )-V12, S9I40GX( )-V12CE 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'.

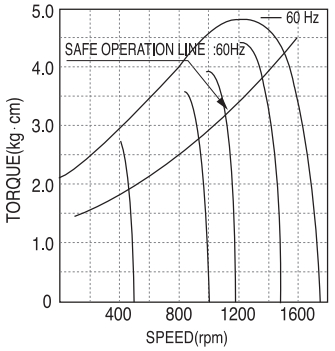
50Hz

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
S9KB□B( )	kg-cm	8.3	9.9	13.8	16.5	20.7	24.8	27.5	34.4	41.3	49.6	49.6	62.1	74.5	89.4	99.3	100	100	100	100	100	100	100	100	100
	N·m	0.813	0.970	1.352	1.617	2.029	2.430	2.695	3.371	4.047	4.861	4.861	6.086	7.301	8.761	9.731	9.800	9.800	9.800	9.800	9.800	9.800	9.800	9.800	9.800

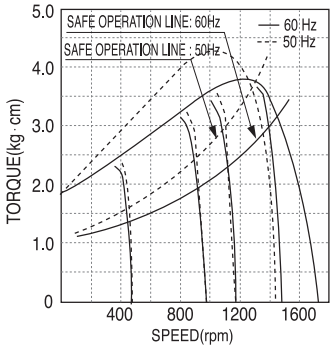
60Hz

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
S9KB□B( )	kg-cm	6.8	8.2	11.3	13.6	17.0	20.4	22.7	28.4	34.0	40.8	40.9	51.1	61.3	73.6	81.8	100	100	100	100	100	100	100	100	100
	N·m	0.666	0.804	1.107	1.333	1.666	1.999	2.225	2.783	3.332	3.998	4.008	5.008	6.007	7.213	8.016	9.800	9.800	9.800	9.800	9.800	9.800	9.800	9.800	9.800

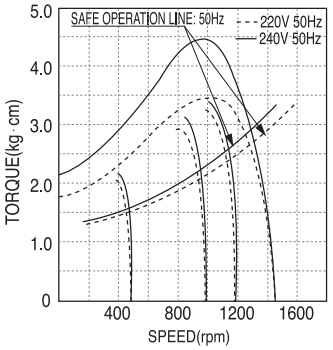
❖ The code in □ of gearhead model is for gear ratio.
❖ It is the permissible torque of the assembled motor and gearhead.
❖ The permissible torque of the motor and inter-decimal gearhead is 100 kg-cm.
❖ ■ color indicates that the output shaft of the geared motor rotates in the same direction as the output 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'.



▲ S9I40GA()-V12 S9I40GB()-V12
S9I40GA()-V12(TP) S9I40GB()-V12(TP)
S9I40GA()-V12CE S9I40GB()-V12CE



▲ S9I40GC()-V12 S9I40GD()-V12
S9I40GC()-V12(TP) S9I40GD()-V12(TP)
S9I40GC()-V12CE S9I40GD()-V12CE

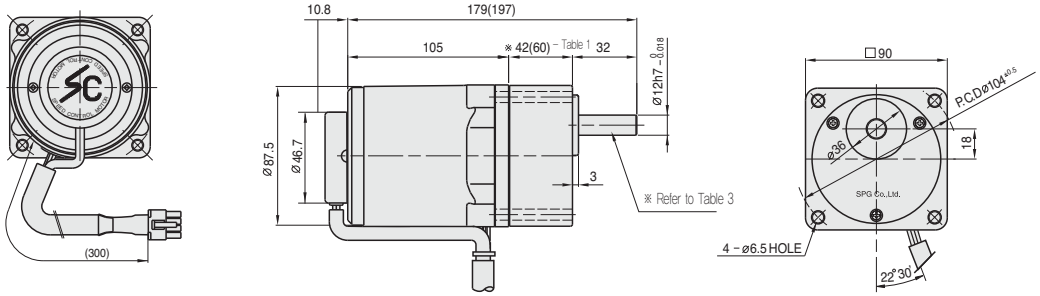


▲ S9I40GX()-V12
S9I40GX()-V12CE

DIMENSIONS

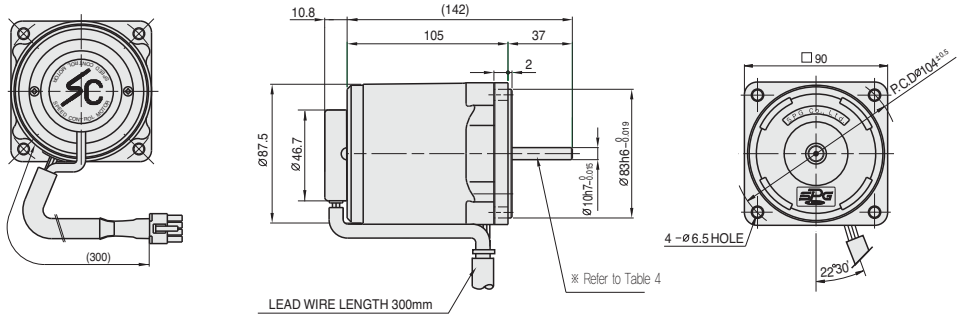
GEARED MOTOR

※MOTOR MODEL : S8(15,25)G□-V12
※HEAD MODEL : S8□A3□~S8□A200□



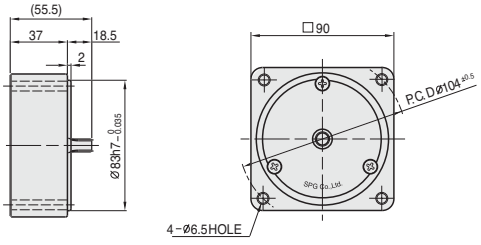
MOTOR

※MOTOR MODEL : S8I(15,25)□□-V12

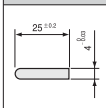
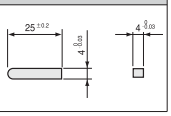


INTER-DECIMAL GEAR HEAD

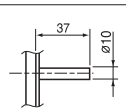
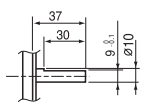
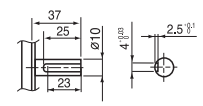
※MODEL : S8GX10B



KEY SPEC

GEAR HEAD	MOTOR
	

SPEC for output shaft of motor - (Table4)

MODEL	TYPES OF OUTPUT SHAFT
GEAR TYPE S9I40G□□-V12	
STRAIGHT TYPE S9I40S□-V12	
D-CUT TYPE S9I40D□-V12	
KEY TYPE S9I40K□-V12	

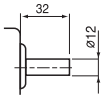
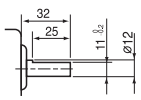
※42(60) - (Table1)

GEAR RATIO	SIZE(㎜)
S9□B3□ ~ S9□B18□	42
S9□B20□ ~ S9□B200□	60

WEIGHT - (Table2)

PART		WEIGHT(kg)
MOTOR		2.42
DECIMAL GEAR HEAD		0.60
GEAR HEAD	S9□B3□□ ~S9□B18□□	0.73
	S9□B20□□ ~S9□B40□□	1.03
	S9□B50□□ ~S9□B200□□	1.13

SPEC for output shaft of gearhead - (Table3)

MODEL	TYPES OF OUTPUT SHAFT
STRAIGHT TYPE S9SB3□ ~S9SB200□	
D-CUT TYPE S9DB3□ ~S9DB200□	
KEY TYPE S9KB3□□ ~S9KB200□□