

UNIT TYPE SPEED CONTROL MOTOR



Characteristics of the unit type speed control motor

- This is a unit product that uses the separate 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	100M Ω 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 50/60Hz applied between the windings and the case after rated motor operation under normal ambient temperature and humidity for 1min.
Temperature Rise	80°C 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°C)
Overheat Protection Device	Built-in thermal protector (automatic return type): Open 120°C \pm 5°C, Close 76°C \pm 15°C
Ambient Temperature	-10°C~40°C
Ambient Humidity	85% maximum(non condensing)



15W

INDUCTION SPEED CONTROL MOTOR
 80mm CONNECTOR TYPE

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)	
									(kg-cm)	(N-m)	(kg-cm)	(N-m)			
80	S8I15GA-V12 S8I15GA-V12(TP) S8I15GA-V12CE	SUA15A-V12	4	15	1 ϕ 110	60	Cont.	90-1700	1.50	0.150	0.35	0.035	0.75	0.075	4.0
	S8I15GB-V12 S8I15GB-V12(TP) S8I15GB-V12CE	SUA15B-V12	4	15	1 ϕ 220	60	Cont.	90-1700	1.50	0.150	0.35	0.035	0.75	0.075	1.0
	S8I15GC-V12 S8I15GC-V12(TP) S8I15GC-V12CE	SUA15C-V12	4	15	1 ϕ 100	50	Cont.	90-1400	1.20	0.120	0.32	0.032	0.60	0.060	4.0
	60					90-1700		1.00	0.100						
	S8I15GD-V12 S8I15GD-V12(TP) S8I15GD-V12CE	SUA15D-V12	4	15	1 ϕ 200	50	Cont.	90-1400	1.20	0.120	0.32	0.032	0.60	0.060	1.0
	60					90-1700		1.00	0.100						
	S8I15GX-V12 S8I15GX-V12CE	SUA15X-V12	4	15	1 ϕ 220	50	Cont.	90-1400	1.20	0.120	0.35	0.035	0.55	0.055	1.0
	1 ϕ 240				1.40				0.140	0.35					

- ❖ 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. S8I15GX-V12, S8I15GX-V12CE is thermally protected type with TP mounted.
- ❖ "L" or "H" type does not apply to motors under 40W.

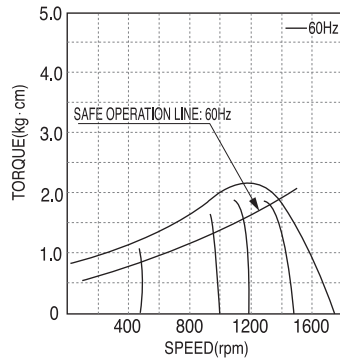
50Hz

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
	kg-cm	3.4	4.1	5.7	6.8	8.5	10.2	11.3	14.2	17.0	20.4	20.4	25.6	30.7	36.8	40.9	46.2	55.4	69.2	80	80	80	80	80	80
S8KA□B	N·m	0.333	0.402	0.559	0.666	0.833	1.000	1.107	1.392	1.666	1.999	1.999	2.509	3.009	3.606	4.008	4.530	5.433	6.786	7.840	7.840	7.840	7.840	7.840	7.840

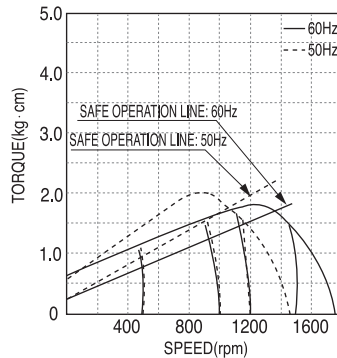
60Hz

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
	kg-cm	2.9	3.5	4.9	5.8	7.3	8.7	9.7	12.2	14.6	17.5	17.5	21.9	26.3	31.5	35.0	39.6	47.5	59.4	71.3	79.2	80	80	80	80
S8KA□B	N·m	0.284	0.343	0.481	0.568	0.715	0.853	0.951	1.196	1.432	1.715	1.715	2.146	2.577	3.087	3.430	3.881	4.658	5.825	6.992	7.767	7.840	7.840	7.840	7.840

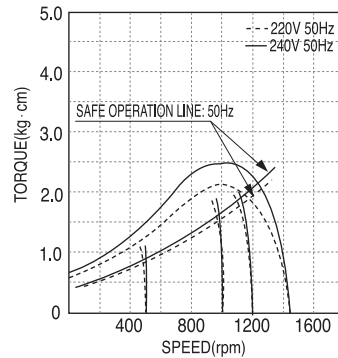
- ❖ The code in □ of gearhead model is for gear ratio.
- ❖ It is the permissible torque of the assembled motor and gearhead.
- ❖ The permissible torque of the motor and inter-decimal gearhead is 80 kg-cm.
- ❖ color indicates that the output shaft of the geared motor rotates in the same direction as the 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.
- ❖ "L" or "H" type does not apply to motors under 40W.



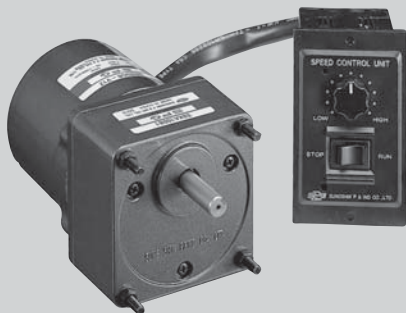
▲ S8I15GA-V12 S8I15GB-V12
 S8I15GA-V12(TP) S8I15GB-V12(TP)
 S8I15GA-V12CE S8I15GB-V12CE



▲ S8I15GC-V12 S8I15GD-V12
 S8I15GC-V12(TP) S8I15GD-V12(TP)
 S8I15GC-V12CE S8I15GD-V12CE



▲ S8I15GX-V12
 S8I15GX-V12CE



25W

INDUCTION SPEED CONTROL MOTOR

□ 80mm CONNECTOR TYPE

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)	
									(kg-cm)	(N-m)	(kg-cm)	(N-m)			
80	S8I25GA-V12 S8I25GA-V12(TP) S8I25GA-V12CE	SUA25IA-V12	4	25	1 ϕ 110	60	Cont.	90-1700	1.70	0.170	0.08	0.080	1.50	0.150	6.0
	S8I25GB-V12 S8I25GB-V12(TP) S8I25GB-V12CE	SUA25IB-V12	4	25	1 ϕ 220	60	Cont.	90-1700	1.70	0.170	0.08	0.080	1.50	0.150	1.5
	S8I25GC-V12 S8I25GC-V12(TP) S8I25GC-V12CE	SUA25IC-V12	4	25	1 ϕ 100	50	Cont.	90-1400	1.60	0.160	0.55	0.055	1.10	0.110	6.0
	60					90-1700		1.50	0.150						
	S8I25GD-V12 S8I25GD-V12(TP) S8I25GD-V12CE	SUA25ID-V12	4	25	1 ϕ 200	50	Cont.	90-1400	1.60	0.160	0.55	0.055	1.10	0.110	1.5
	60					90-1700		1.50	0.150						
S8I25GX-V12 S8I25GX-V12CE	SUA25IX-V12	4	25	1 ϕ 220	50	Cont.	90-1400	1.50	0.150	0.50	0.050	1.00	0.100	1.5	
1 ϕ 240				1.80				0.180	0.50	0.050	1.20	0.120			

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- ❖ "L" or "H" type does not apply to motors under 40W.

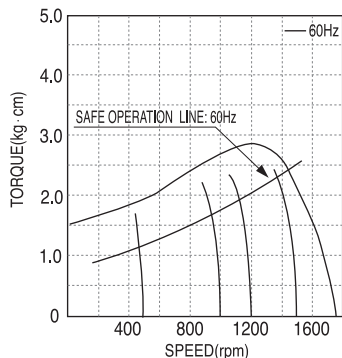
50Hz

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	
S8KA□B	kg-cm	5.3	6.4	8.9	10.7	13.4	16.0	17.8	22.3	26.7	32.1	32.1	40.2	48.2	57.8	64.2	72.6	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
	N·m	0.519	0.627	0.872	1.049	1.313	1.568	1.744	2.185	2.617	3.146	3.146	3.940	4.724	5.664	6.292	7.115	7.840	7.840	7.840	7.840	7.840	7.840	7.840	7.840	7.840	7.840

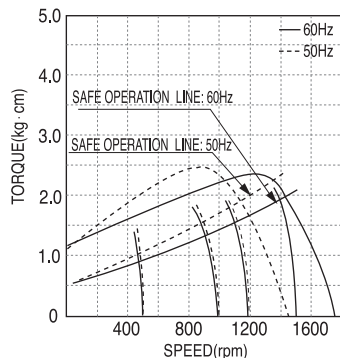
60Hz

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
S8KA□B	kg-cm	4.4	5.2	7.3	8.7	10.9	13.1	14.6	18.2	21.9	26.2	26.3	32.9	39.4	47.3	52.6	59.4	71.3	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
	N·m	0.431	0.510	0.715	0.853	1.068	1.284	1.431	1.784	2.146	2.568	2.577	3.224	3.861	4.635	5.155	5.821	6.987	7.840	7.840	7.840	7.840	7.840	7.840	7.840	7.840

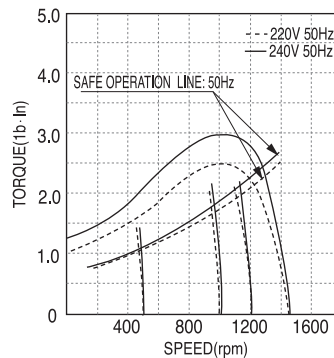
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▲ S8I25GA-V12 S8I25GB-V12
S8I25GA-V12(TP) S8I25GB-V12(TP)
S8I25GA-V12CE S8I25GB-V12CE



▲ S8I25GC-V12 S8I25GD-V12
S8I25GC-V12(TP) S8I25GD-V12(TP)
S8I25GC-V12CE S8I25GD-V12CE

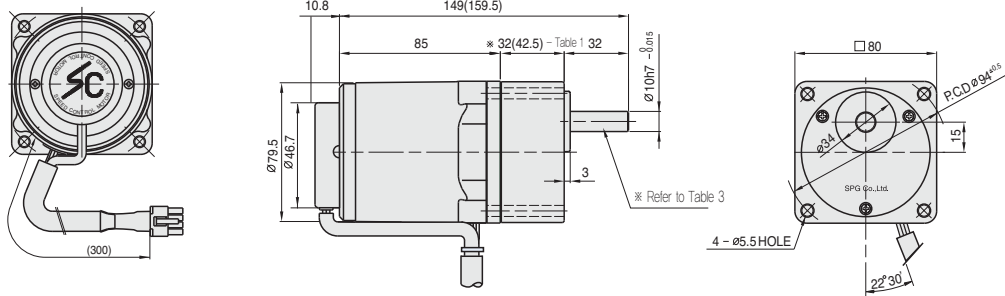


▲ S8I25GX-V12
S8I25GX-V12CE

DIMENSIONS

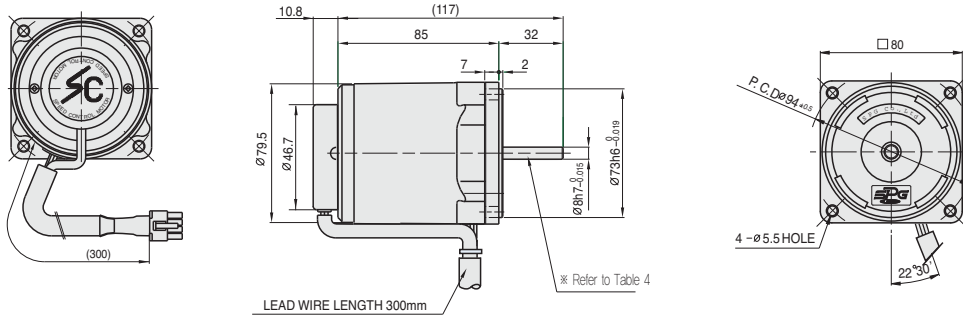
+ GEARED MOTOR

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



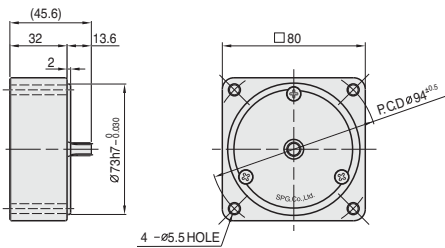
+ MOTOR

※ MOTOR MODEL : S8I(15,25)□□-V12



+ INTER-DECIMAL GEAR HEAD

※ MODEL : S8GX10B



+ KEY SPEC

GEAR HEAD	MOTOR

+ ※32(42.5) - (Table 1)

GEAR RATIO	SIZE(mm)
S8□A3□ ~ S8□A18□	32
S8□A20□ ~ S8□A200□	42.5

+ WEIGHT - (Table 2)

PART	WEIGHT(kg)	
15W MOTOR	1.6	
25W MOTOR	1.6	
DECIMAL GEAR HEAD	0.43	
GEAR HEAD	S8□A3□ ~ S8□A18□	0.43
	S8□A20□ ~ S8□A40□	0.57
	S8□A50□ ~ S8□A200□	0.61

+ SPEC for output shaft of gearhead - (Table 3)

MODEL	TYPES OF OUTPUT SHAFT
S8SA3□ ~ S8SA200□	STRAIGHT TYPE
	D-CUT TYPE
S8DA3□ ~ S8DA200□	STRAIGHT TYPE
	D-CUT TYPE
S8KA3□ ~ S8KA200□	KEY TYPE
	KEY TYPE

+ SPEC for output shaft of motor - (Table 4)

MODEL	TYPES OF OUTPUT SHAFT
S8I15G□-V12 S8I25G□-V12	GEAR TYPE
	STRAIGHT TYPE
S8I15S□-V12 S8I25S□-V12	STRAIGHT TYPE
	D-CUT TYPE
S8I15D□-V12 S8I25D□-V12	STRAIGHT TYPE
	D-CUT TYPE
S8I15K□-V12 S8I25K□-V12	KEY TYPE
	KEY TYPE