STARTING

SERVICE DATA

SSDEC–01

Starter (1.0 kW, 1.2 kW, 1.4 kW type)	Rated voltage and output			12V 1.0 kW, 1.2 kW, 1.4 kW,
	No–load characteristics		Current	90 A or less at 11.5 V
			rpm	3,000 rpm or more
	Brush length	STD	1.0 kW	13.5 mm (0.531 in.)
			1.2 kW, 1.4 kW	15.5 mm (0.610 in.)
		Minimum	1.0 kW	8.5 mm (0.335 in.)
			1.2 kW, 1.4 kW	10.0 mm (0.394 in.)
	Spring installed load	STD	1.2 kW	13.7 – 19.6 N (1.4 – 2.0 kgf, 3.1 – 4.4 lbf)
			1.0 kW, 1.4 kW	17.6 – 23.5 N (1.8 – 2.4 kgf, 4.0 – 5.3 lbf)
		Minimum	1.2 kW	9.8 N (1.0 kgf, 2.2 lbf)
			1.0 kW, 1.4kW	11.8 N (1.2 kgf, 2.6 lbf)
	Commutator			
	Diameter		STD	30 mm (1.18 in.)
			Minimum	29 mm (1.14 in.)
	Undercut depth		STD	0.6 mm (0.024 in.)
			Minimum	0.2 mm (0.08 in.)
	Circle runout		Maximum	0.05 mm (0.0020 in.)
	Magnetic switch			
	Contact plate for wear		Maximum	0.9 mm (0.035 in.)
Starter (2.0 kW type)	Rated voltage and output power			12V 2.0 kW
	No–load characteristics		Current	100 A or less at 11.5 V
			rpm	2,000 rpm or more
	Brush length		STD	15.0 mm (0.591 in.)
			Minimum	9.0 mm (0.354 in.)
	Spring installed load		STD	21.5 – 27.5 N (2.20 – 2.80 kgf, 4.9 – 6.2 lbf)
			Minimum	12.7 N (1.30 kgf, 2.7 lbf)
	Commutator			
	Diameter		STD	35.0 mm (1.378 in.)
			Minimum	34.0 mm (1.339 in.)
	Undercut depth		STD	0.7 mm (0.028 in.)
			Minimum	0.2 mm (0.008 in.)
	Circle runout		Maximum	0.05 mm (0.0020 in.)
	Magnetic switch			
	Contact plate for wear		Maximum	0.9 mm (0.035 in.)

TORQUE SPECIFICATION

SS0BD-01

Part tightened		N·m	kgf·cm	ft·lbf
Field frame x Armature		5.9	60	52 in.·lbf
End frame x Starter housing	1.2 kW, 1.4 kW	5.9	60	52 in.·lbf
	1.0 kW, 2.0 kW	9.3	93	82 in.·lbf
Starter housing x Magnetic switch assembly	1.2 kW, 1.4 kW	5.9	60	52 in.·lbf
	1.0 kW, 2.0 kW	9.3	93	82 in.·lbf
End cover x Brush holder	1.0 kW, 1.2 kW, 1.4 kW	1.5	15	13 in.·lbf
	2.0 kW	3.8	39	34 in.·lbf
Lead wire x Terminal C		5.9	60	52 in.·lbf
Terminal nut x Terminal 30 of starter, Terminal C of starter		17	170	12
Magnetic switch end cover x Magnetic switch	1.2 kW, 1.4 kW type	2.5	26	23 in.·lbf
	1.0 kW, 2.0 kW type	3.6	37	32 in.·lbf