STARTING SERVICE DATA

SS0FQ-03

Starter	Rated voltage and output power		12 V 1.0 kW
(Planetary type)	No-load characteristics	Current	90 A or less at 11.5 V
		rpm	3,000 rpm or more
	Center bearing oil clearance	STD	0.01 – 0.06 mm (0.0004 – 0.0024 in.)
		Maximum	0.2 mm (0.0078 in.)
	Brush length	STD	14.0 mm (0.551 in.)
		Minimum	9.0 mm (0.354 in.)
	Spring installed load	STD	13.7 – 17.6 N (1.4 – 1.8 kgf, 3.1 – 4.0 lbf)
		Minimum	8.8 N (0.9 kgf, 2.0 lbf)
	Commutator		
	Diameter	STD	28.0 mm (1.102 in.)
		Minimum	27.0 mm (1.063 in.)
	Undercut depth	STD	0.6 mm (0.024 in.)
		Minimum	0.2 mm (0.008 in.)
	Circle runout	Maximum	0.05 mm (0.0020 in.)
Starter	Rated voltage and output power		12 V 1.4 kW
(Reduction type)	No-load characteristics	Current	90 A or less at 11.5 V
		rpm	3,000 rpm or more
	Brush length	STD	15.5 mm (0.610 in.)
		Minimum	10.0 mm (0.394 in.)
	Spring installed load	Minimum STD	10.0 mm (0.394 in.) 17.6 – 23.5 N (1.8 – 2.4 kgf, 3.9 – 5.3 lbf)
	Spring installed load		1
	Spring installed load Commutator	STD	17.6 – 23.5 N (1.8 – 2.4 kgf, 3.9 – 5.3 lbf)
		STD	17.6 – 23.5 N (1.8 – 2.4 kgf, 3.9 – 5.3 lbf) 11.8 N (1.2 kgf, 2.6 lbf)
	Commutator	STD Minimum	17.6 – 23.5 N (1.8 – 2.4 kgf, 3.9 – 5.3 lbf) 11.8 N (1.2 kgf, 2.6 lbf) 30.0 mm (1.181 in.)
	Commutator	STD Minimum STD	17.6 – 23.5 N (1.8 – 2.4 kgf, 3.9 – 5.3 lbf) 11.8 N (1.2 kgf, 2.6 lbf) 30.0 mm (1.181 in.)
	Commutator Diameter	STD Minimum STD Minimum	17.6 – 23.5 N (1.8 – 2.4 kgf, 3.9 – 5.3 lbf) 11.8 N (1.2 kgf, 2.6 lbf) 30.0 mm (1.181 in.) 29.0 mm (1.142 in.)
	Commutator Diameter	STD Minimum STD Minimum STD	17.6 – 23.5 N (1.8 – 2.4 kgf, 3.9 – 5.3 lbf) 11.8 N (1.2 kgf, 2.6 lbf) 30.0 mm (1.181 in.) 29.0 mm (1.142 in.) 0.6 mm (0.024 in.)
	Commutator Diameter Undercut depth	STD Minimum STD Minimum STD Minimum	17.6 – 23.5 N (1.8 – 2.4 kgf, 3.9 – 5.3 lbf) 11.8 N (1.2 kgf, 2.6 lbf) 30.0 mm (1.181 in.) 29.0 mm (1.142 in.) 0.6 mm (0.024 in.) 0.2 mm (0.008 in.)