

SERVICE SPECIFICATIONS

SERVICE DATA

ST015-02

ST	Starter (1.4 kW type)	Rated voltage and output power No-load characteristics (Current) No-load characteristics (rpm) Brush length (STD) Brush length (Minimum) Spring installed load Commutator Diameter (STD) Diameter (Minimum) Undercut depth (STD) Undercut depth (Minimum) Circle runout (Maximum)	12 V 1.4 kW 90 A or less at 11.5 V 3,000 rpm or more 15.0 mm (0.591 in.) 10.0 mm (0.394 in.) 18 – 24 N (1.79 – 2.41 kgf, 3.9 – 5.3 lbf) 30 mm (1.18 in.) 29 mm (1.14 in.) 0.6 mm (0.024 in.) 0.2 mm (0.008 in.) 0.05 mm (0.0020 in.)
	Starter (2.2 kW type)	Rated voltage and output power No-load characteristics (Current) No-load characteristics (rpm) Brush length (STD) Brush length (Minimum) Spring installed load Commutator Diameter (STD) Diameter (Minimum) Undercut depth (STD) Undercut depth (Minimum) Circle runout (Maximum)	12 V 2.2 kW 120 A or less at 11.5 V 3,300 rpm or more 15.0 – 15.5 mm (0.591 – 0.610 in.) 9.5 mm (0.374 in.) 26 – 32 N (2.7 – 3.3 kgf, 6.0 – 7.3 lbf) 35 mm (1.38 in.) 34 mm (1.34 in.) 0.7 – 0.9 mm (0.024 in. – 0.035 in.) 0.2 mm (0.008 in.) 0.05 mm (0.0020 in.)

TORQUE SPECIFICATIONS

ST016-03

Part tightened	N·m	kgf·cm	ft·lbf
Starter mounting bolt	39	400	29
Starter mounting nut	39	400	29
Starter wire mounting nut	8.8	90	78 in·lbf