SERVICE SPECIFICATIONS

SERVICE DATA

ST015–02

Starter (1.4 kW type)	Rated voltage and ou ⟨ctput power	12 V 1.4 kW
	No–load characteristics (Current)	90 A or less at 11. 5 V
	No–load characteristics (rpm)	3,000 rpm or more
	Brush length (STD)	15.0 mm (0.591 in.)
	Bursh length (Minimum)	10.0 mm (0.394 in.)
	Spring installed load	18 – 24 N (1.79 – 2.41 kgf, 3.9 – 5.3 lbf)
	Commutator	
	Diameter (STD)	30 mm (1.18 in.)
	Diameter (Minimum)	29 mm (1.14 in.)
	Undercut depth (STD)	0.6 mm (0.024 in.)
	Undercut depth (Minimum)	0.2 mm (0.008 in.)
	Circle runout (Maximum)	0.05 mm (0.0020 in.)
Starter (2.2 kW type)	Rated voltage and output power	12 V 2.2 kW
	No–load characteristics (Current)	120 A or less at 11. 5 V
	No–load characteristics (rpm)	3,300 rpm or more
	Brush length (STD)	15.0 – 15.5 mm (0.591 – 0.610 in.)
	Bursh length (Minimum)	9.5 mm (0.374 in.)
	Spring installed load	26 – 32 N (2.7 – 3.3 kgf, 6.0 – 7.3 lbf)
	Commutator	
	Diameter (STD)	35 mm (1.38 in.)
	Diameter (Minimum)	34 mm (1.34 in.)
	Undercut depth (STD)	0.7 – 0.9 mm (0.024 in. – 0.035 in.)
	Undercut depth (Minimum)	0.2 mm (0.008 in.)
	Circle runout (Maximum)	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