

**SERVICE SPECIFICATIONS**

ST015-02

**SERVICE DATA**

Starter	Rated voltage and output power	<b>12 V 1.4 kW, 12 V 1.6 kW</b>
	No-load characteristics (Current)	<b>90 A or less at 11.5 V</b>
	No-load characteristics (rpm)	<b>3,000 rpm or more (Compact type) 3,500 rpm or more (Conventional type)</b>
	Brush length (STD)	<b>15.0 mm (0.591 in.)</b>
	Brush length (Minimum)	<b>10.0 mm (0.394 in.)</b>
	Spring installed load	<b>18 – 24 N (1.79 – 2.41 kgf, 3.9 – 5.3 lbf)</b>
	Commutator	
	Diameter (STD)	<b>30 mm (1.18 in.)</b>
	Diameter (Minimum)	<b>29 mm (1.14 in.)</b>
	Undercut depth (STD)	<b>0.6 mm (0.024 in.)</b>
	Undercut depth (Minimum)	<b>0.2 mm (0.008 in.)</b>
	Circle runout (Maximum)	<b>0.05 mm (0.0020 in.)</b>

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**TORQUE SPECIFICATIONS**

Part tightened	N-m	kgf-cm	ft-lbf
Starter mounting bolt	<b>39</b>	<b>400</b>	<b>29</b>