

**STARTING & CHARGING****SERVICE DATA**

0318L-01

Starter (1.6 kW type)		
Rated voltage and output power		12 V 1.6 kW
No-load characteristics	Current	90 A or less at 11.5 V
Starter armature assy		
Commutator length	Standard	3.1 mm (0.122 in.)
	Minimum	3.8 mm (0.150 in.)
Starter commutator end frame assy		
Brush holder length	Standard	9.0 mm (0.354 in.)
	Minimum	4.0 mm (0.158 in.)
Starter armature assy		
Snap ring length	Maximum	5.0 mm (0.197 in.)
Starter (2.0 kW type)		
Rated voltage and output power		12 V 2.0 kW
No-load characteristics	Current	100 A or less at 11.5 V
Starter armature assy		
Circle runout	Maximum	0.05 mm (0.0020 in.)
Commutator diameter	Standard	35.0 mm (1.378 in.)
	Minimum	34.0 mm (1.339 in.)
Undercut depth	Standard	0.7 mm (0.028 in.)
	Minimum	0.2 mm (0.008 in.)
Starter yoke		
Shunt coil resistance	at 20°C (68°F)	1.5 - 1.9 Ω
Brush		
Brush length	Standard	15.0 mm (0.591 in.)
	Minimum	9.0 mm (0.354 in.)
Starter brush holder assy		
Brush spring load	Standard	21.5 - 27.5 N (2.2 - 2.8 kgf, 4.8 - 6.2 lbf)
	Minimum	12.7 N (1.3 kgf, 2.9 lbf)
Starter relay assy		
Specified condition	1 - 2	Continuity
	3 - 5	No continuity
ACC relay		
Specified condition	1 - 2	Continuity
	3 - 4	Continuity
	3 - 5	No continuity
Battery		
Voltage	at 20°C (68°F)	12.5 - 12.9 V
Except maintenance-free battery	Standard specific gravity	1.25 - 1.29 at 20 °C (68 °F)
Voltage regulator		
Regulating voltage		13.2 - 14.8 V
Generator brush holder assy		
Brush length	Standard	10.5 mm (0.413 in.)
	Minimum	4.5 mm (0.177 in.)
Generator rotor assy		
Resistance	at 20°C (68°F)	2.3 - 2.7 Ω
Slip ring diameter	Standard	14.2 - 14.4 mm (0.559 - 0.567 in.)
	Minimum	14.0 mm (0.551 in.)