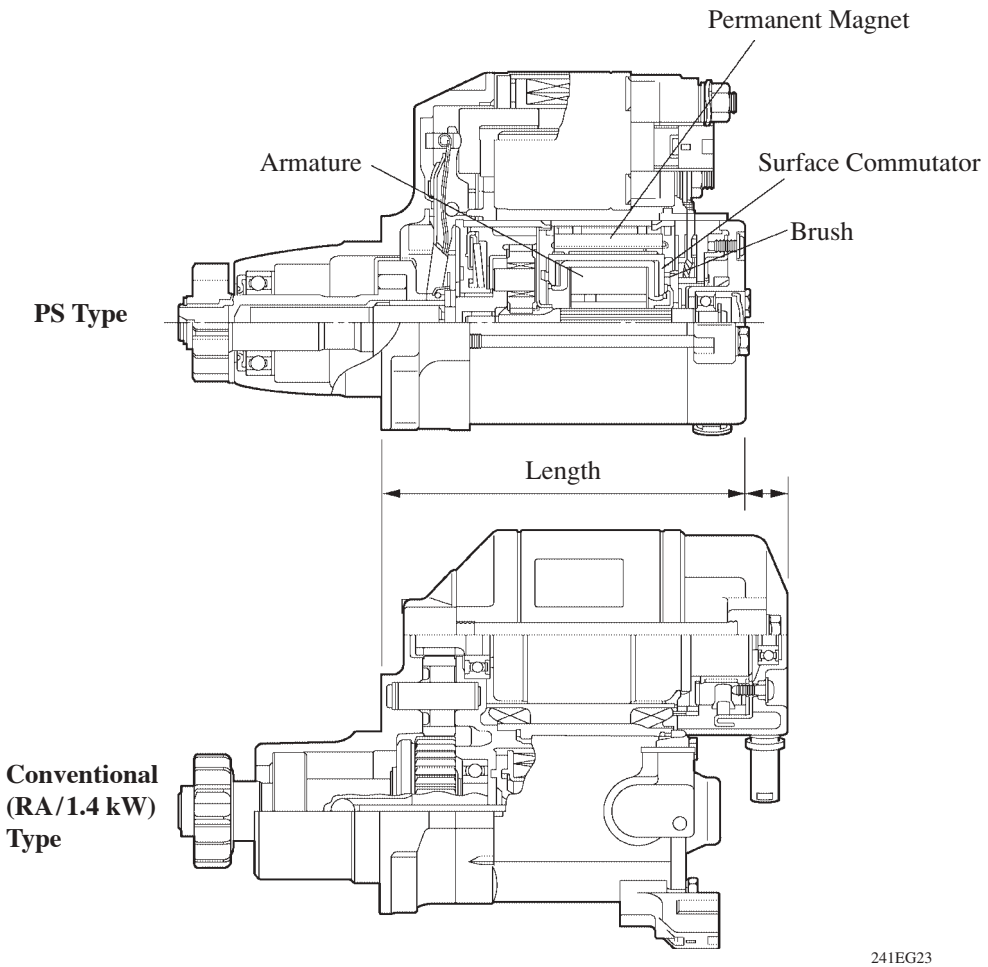
■STARTING SYSTEM

1. General

- A compact and lightweight PS (Planetary reduction-Segment conductor motor) type starter has been adopted on all models.
- Because the PS type starter contains an armature that uses square-shaped conductors, and its surface functions as a commutator, it has resulted in both improving its output torque and reducing its overall length.
- In place of the field coil used in the conventional type starter, the PS type starter uses two types of permanent magnets: main magnets and interpolar magnets. The main magnets and interpolar magnets have been efficiently arranged to increase the magnetic flux and to shorten the length of the yoke.



▶ Specifications ◀

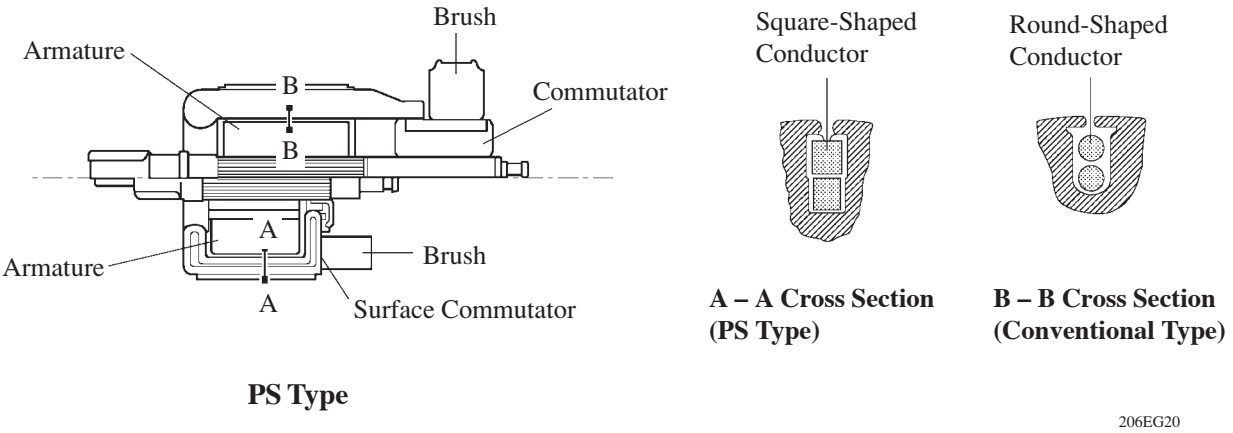
Starter Type	PS Type
Rating Output	1.7 kW
Rating Voltage	12 V
Length	128.1 mm (5.04 in.)
Weight	2950 g (6.50 lb)
Rotating Direction*	Clockwise

*: Viewed from Pinion Side

2. Construction

- Instead of constructing the armature coil with conventional type round-shaped conductor wires, the PS type starter uses square conductors. With this type of construction, the same conditions that are realized by winding numerous round-shaped conductor wires can be achieved without increasing the mass. As a result, the output torque has been increased, and the armature coil has been made more compact.
- Because the surface of the square-shaped conductors that are used in the armature coil functions as a commutator, the overall length of the PS type starter has been shortened.

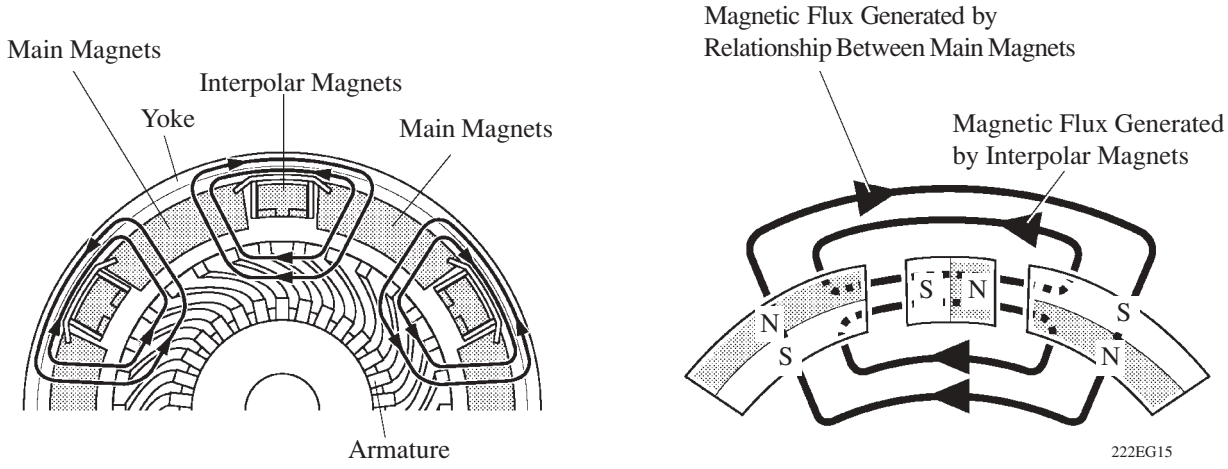
Conventional Type



PS Type

206EG20

- Instead of the field coils used in the conventional type starter, the PS type starter has adopted two types of permanent magnets: the main magnets and the interpolar magnets. The main and interpolar magnets are arranged alternately inside the yoke, allowing the magnetic flux that is generated between the main and interpolar magnets to be added to the magnetic flux that is generated by the main magnets.
  In addition to increasing the amount of magnetic flux, this construction shortens the overall length of the yoke.



Cross Section of Yoke

222EG15